moto e13

User Guide

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To read this help on your phone, go to **Settings** > **Help**.

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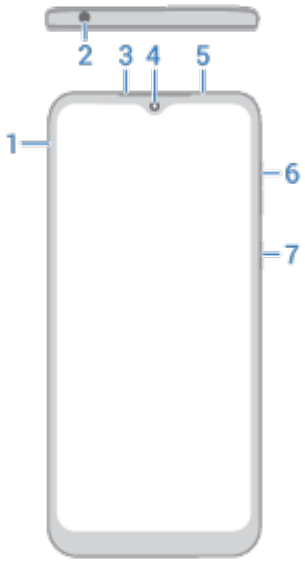
About your hardware

Hardware diagram



1. Tray for SIM and SD card
2. Headset jack
3. Earpiece
4. Front camera
5. Proximity sensor
6. Volume up/down button
7. Power button

1. Back camera
2. LED flash
3. Speaker
4. USB-C port to charge phone, transfer files, and share data connection with tethered devices
5. Microphone

Care for your phone

To clean the screen:

- While this does not disinfect your phone, the best way to keep your phone clean is to wipe it thoroughly with a dry soft cloth. Avoid abrasive cloths, including paper towels and other materials with rough surfaces.
- If the screen gets drops of liquid on it, wipe it with a clean, dry cloth.

To disinfect your phone:

- It is okay to use wipes or cloths moistened with 70% isopropyl alcohol to gently wipe your screen.
- When disinfecting or cleaning your phone, turn it off and avoid getting any moisture in its openings, including the charging port, headphone jack, microphones and speakers.
- Don't submerge your phone in any cleaning agents, avoid using any cleaners with bleach or abrasives, and avoid spraying cleaners directly on the screen.

Prevent water damage

Mobile phones marketed as water repellent are not waterproof. Avoid prolonged exposure to water, and do not submerge in water.

Water damage is not covered by your warranty.

To prevent water damage to your phone:

- Dry your phone and ports thoroughly with a soft, clean cloth.
- Don’t try to charge your phone when it’s wet.

- Don't expose your phone to salt water or other liquids other than fresh water.
- Don't expose your phone to water at high pressure.
- Don't drop or puncture your phone, as this could damage the water repellent features.

Insert and remove SIM and SD cards

About the SD card

Your phone supports an optional microSD card up to 1 TB.

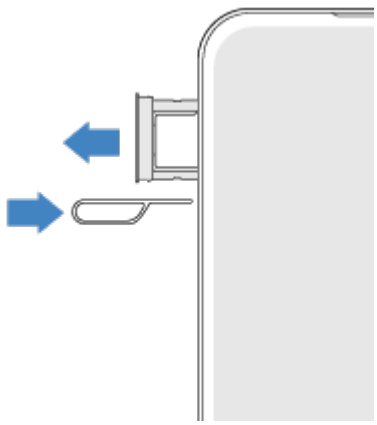
A Class 2, 4, or 6 card is sufficient.

Your phone uses the card as portable storage for media files: photos, videos, and music. Because it's portable, you can easily swap the card and its content between devices. After you insert the card, be sure to update settings within media apps (like camera, music, and podcast apps), so they use the card to store content you create or download.

You can't store apps on the SD card because it is portable storage.

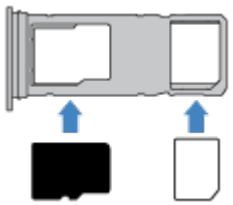
Insert or replace cards

1. If you want to remove the SD card, eject it first.
2. Insert the tool into the hole in the tray and gently push to pop it out.

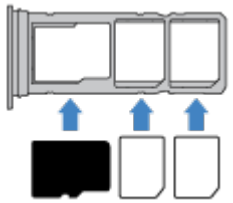


3. Insert or remove the cards as needed.

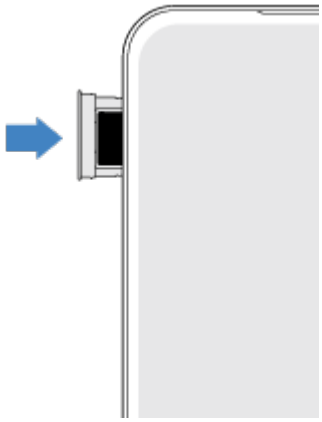
   To use an SD card and a SIM card:



   Or, to use two SIM cards (dual-SIM models only):



4. Push the tray back into the phone.



If you inserted two SIMs, you'll receive a notification to set them up. Swipe the notification down and touch it to manage dual SIMs. If you see , troubleshoot the issue.

Note: If you need to activate a SIM, contact your carrier.

Fix an issue

Select an issue to see troubleshooting steps.

SIM card

SIM not recognized

Can’t make calls

Can't answer calls

SD card
Phone doesn't recognize card

Copy data from old phone

Copy data from iPhone

You'll use Google Drive to copy files from your iPhone and iCloud account to your new phone and Google account:

- Photos will back up to Gallery.
- Contacts will back up to Contacts.
- Calendar will back up to Calendar.

1. Charge both phones and connect them to a Wi-Fi network.
2. To ensure you don't miss any messages or calls, on your iPhone:
   a. Turn off iMessage. (**Settings** > **Messages** off. Or, if your SIM has been removed, deregister your phone.)
   b. Turn off FaceTime. (**Settings** > **FaceTime** > off.)
3. Download the Google Drive app on your iPhone.
4. On your iPhone, open Drive and then:
   a. Sign in with your Google account. If you don't have one, you can create it now.
   b. Touch > **Settings** > **Backup & reset** and start the backup.
5. Wait for the backup to complete.
6. When complete, on your new phone, sign in with the same Google account (**Settings** > **Passwords & accounts** > **Add account**).

Copy data from Android phone

During setup, you can copy your apps, music, contacts, messages, and more. Learn what does and doesn't get copied.

If you no longer have your old phone or can't turn it on, you can copy files using a backup from the cloud with your Google account.

To copy files:

1. Charge both phones and turn them on.
2. On your new phone:
   a. If this is the first time you've turned it on, select your language on the setup screen.
   b. If you skipped copying files during setup, open the **Settings** app and touch **Finish setting up your device**.
3. Touch **Start**.
4. Insert your SIM to connect to the mobile network, or touch **Skip**.
5. Connect to a Wi-Fi network and touch **Next**.

6. Follow the onscreen instructions to select the old phone or backup associated with your Google account, and to choose which apps and data to copy.

> **Tip:** Be sure to leave **Back up to Google Drive** turned on.

What gets copied from Android phone

If you copy data from another Android phone during setup, here's what gets copied:

- Apps and app data
- Music, photos, and videos
- Google accounts
- Contacts stored on your phone or SIM card
- Text messages
- Multimedia attachments in messages
- Most phone settings
- Wallpaper
- Call history

You'll see these when you sign in to your Google account on your new phone.

What won't copy:

- Downloads, like PDF files
- Apps that aren't from Play Store
- Accounts other than Google accounts
- Contacts and calendars for services other than Google (such as WhatsApp)
- Ringtones

Import contacts from SIM

If you have a SIM card with contacts saved on it, you can import them into your Google account.

1. Insert the SIM in your phone.

   Or, if your old phone is an Android phone and can connect to Wi-Fi, turn it on.
2. Open the Contacts app.
3. Touch > .
4. If your phone has dual SIMs, select the SIM.
5. Select where to save the contacts:
   - If you have multiple Google accounts, touch and choose the account where you want to save them.
   - To save them to your phone, touch **Device**.

6. Select the contacts to import and touch **Import**.

Manage dual SIMs

About dual SIMs

When two SIMs are inserted:

- You see at the top of the home screen. If you see , troubleshoot the issue.
- Both SIMs can make and receive calls and text messages.
- Only the owner of the phone (not additional users or guests) can access dual SIM settings.

Set up SIMs

You can specify which SIM to use for mobile data, calls, and text messages:

1. Go to **Settings** > **Network & internet** > **Calls & SMS**.
2. Touch **Calls**, then select a SIM or choose **Ask every time**.
3. Touch **SMS**, then select a SIM or choose **Ask every time**.

Set up voicemail

Set voicemail password

Contact your carrier for help setting or recovering your password/PIN for voicemail.

Set mailbox greeting

Your carrier provides and manages your voicemail.

To set your greeting:

1. Touch > .
2. Touch & hold to dial into your mailbox.
3. Follow your carrier's system prompts. If your voicemail is not set up, contact your carrier for instructions.

Change voicemail options

1. Touch > > **Settings**.

   (If you don't see , swipe down on the screen.)
2. Touch **Voicemail**.
3. If you have two SIM cards, touch the SIM for the account to change.

4. Change any of the options:
   - To change voicemail service from your carrier to a different service or app, touch **Advanced Settings** > **Service**.
   - To change the number dialed to access voicemail, touch **Advanced Settings** > **Setup**.
   - Your carrier might include additional options here, like notification and visual voicemail settings. Contact your carrier for help.

Set up email

Set up personal email

You can add multiple email accounts of the following types:

- Gmail
- Personal email from other providers (IMAP/POP)

If you added a Google account on your phone:

- When you open the Gmail app for the first time, you'll see your email for that account. You're already set up.
- To set up additional accounts, open Gmail, touch your profile icon, then touch **Add another account**.

If you didn't add a Google account to your phone and want to set up email for an IMAP/POP provider (an address that's not Gmail):

1. Open the **Gmail** app.
2. Follow the onscreen instructions to enter your email address, password, and account options.

   If you have problems setting up the account, read Google's help for Gmail.

Set up corporate email

If you use Microsoft Office Outlook on your work computer, your phone can synchronize emails, calendar events, and contacts with the Microsoft Exchange server. Before you start, you'll need the following information from your company's IT department:

- Email address
- Email password
- Domain name
- Username
- Server name
- Security type/SSL settings
- Client certificate requirement

To set up corporate email:

1. Open the **Gmail** app.

2. Do one of the following:
   - If this is your first time opening the Gmail app, touch **Add another email address**.
   - If you have been using Gmail with another account, touch your profile icon, then touch **Add another account**.
3. Touch **Exchange and Office 365**.
4. Follow the onscreen instructions to enter your email address, password, and other information from your company's IT department.

Switch account views

In the **Gmail** app, touch your profile icon, then select an account.

Make it yours

This topic lists things that most people want to do with their new phone, with links to instructions on how to do them.

Personalize your phone

- Set the wallpaper.
- Add apps to your home screen.
- Adjust screen settings, like font size, rotation settings, and dark background.
- You can use either the ◀ ● ■ buttons or gestures to move between apps and screens. Choose which System navigation to use.
- Assign ringtones or photos to friends you call.
- Set your schedule for Do Not Disturb, to automatically silence your phone when you don't want to be interrupted.

Protect your phone

- Set up a screen lock.
- In case you lose your phone, set up Find My Device and record your IMEI number.

Other common set up tasks

- Connect with your Bluetooth devices and Wi-Fi networks.
- If you use multiple languages, set them up so they appear on your keyboard.

About your home screen

You see the home screen when you turn on and unlock your phone or swipe up from the bottom of the screen.

Swipe right or left to move between home screens.

What’s on the screen

1. Status bar: Displays the time and icons that tell you about your phone's battery and network connections. Swipe down to see your notifications and quick settings and to turn your phone off.
2. Widget: Your phone comes with this widget and the search widget, but isn't intended for other resource-intensive widgets because it runs Android Go, which is optimized for limited hardware resources. To add widgets, even if they reduce your phone's performance, install a launcher that supports widgets for Android Go.
3. Shortcut: You can add shortcuts to open apps you use frequently.
4. Favorites tray: Provides one touch access to your most-used apps from any home screen page. You can customize which apps appear here.
5. Navigation:

   takes you back one screen.

   returns you to the home screen from any app.

   lets you switch between recent apps.

   You can replace these icons with gesture navigation instead.
6. Folder: Add folders to organize app shortcuts.

Add/remove screens

You can add more home screens to the right. To add a page, drag an app shortcut to the edge of the current page and place it on the new screen.

To remove a home screen, drag all apps and folders off the screen. After you remove the last item, the home screen will be removed.

Customize your home screen

Organize it:

- Touch & hold an item you want to move, then drag it to the new location.
- Group icons into folders.
- Choose where to find your list of all apps: in the app tray or directly on the home screen.

Change how you get around: You can replace the navigation bar with the navigation icons.

Change how it looks:

- To see options for customizing wallpaper, and other home settings, touch & hold a blank space on the home screen.
- For an entirely new look and feel for your home screen, you can install a different launcher.

About your lock screen

The lock screen appears when you're using a screen lock and you power on your phone or turn on the screen.

From the lock screen, you can:

- Make an emergency call.
- View and respond to notifications. Double touch one to open it.

- Open quick settings. Swipe down from top of the screen for your four top settings and notifications, then swipe again to see the rest.
- Start a call. Swipe right.
- Go into Lockdown. Temporarily turn off notifications and fingerprint unlocking.

You can customize your lock screen to add a message and control which notifications appear.

If this is your first smartphone

Learn the basics

To get around your phone, here are the key concepts.

- You can choose how you move between apps and screens: gestures or icons.
- In addition to touching the screen to select items, you can use other gestures, such as pinch to zoom.
- The icons at the top of your home screen tell you important stuff at a glance, like your phone's battery level and network connection, and whether you've missed a call.
- Your phone and apps send you notifications for things like new messages, calendar events, and upcoming alarms. You'll find notifications in several places, and can do a lot with them.

To learn about these common tasks, touch one below:

- Answer a call
- Make a call
- Set an alarm
- Turn the flashlight on/off
- Listen to music

Get apps

Your phone comes with many fun and useful apps, but you can really unlock its power by installing apps that suit your lifestyle. Go to Play Store to explore free and paid apps that help you be more productive, organized, informed, in touch, and entertained.

Protect your phone

You carry your phone around with you, and accidents happen; phones get lost sometimes. So set up some security and prevent heartache if you and your phone become separated.

Set up a screen lock. This is your first line of defense in keeping your sensitive information safe. Prefer numbers, shapes, words? Set up a PIN, pattern, or password required to unlock your phone. Learn how.

A screen lock doesn't prevent you from immediately answering a call or accessing your camera.

Display your owner info. On your lock screen, you can discreetly display a "please return" message with some of your contact info so that, if your phone is lost, someone can return it to you. Learn how.

Enable lost phone features. For peace of mind, check out Find My Device, in case you ever need to remotely locate and lock or erase your phone.

Personalize your phone

While changing your wallpaper is probably your first customization, don't stop there. Be sure to explore your Settings to set ringtones, font sizes, data usage preferences, keyboard preferences, and much more. It's a great way to learn many of your phone's capabilities while customizing it to suit your needs.

In most apps you can touch ☰ or ⋮ for app-specific settings. Be sure to see what options are available to you there, too.

Manage cellular data

Understand your data usage. Keep an eye on your data usage and learn how to make the most of it. See which apps use large amounts of data and adjust their settings. If your phone is using too much data, you can also stop accounts from auto-syncing.

Use Wi-Fi to conserve cellular data. When you connect to a Wi-Fi network, your data will use that network connection instead of your carrier's network, saving your cellular data for when you need it. Learn how to connect to Wi-Fi networks.

Useful to know

Find phone info. To find your phone number, device name, and other information, go to **Settings** > **About phone**.

Tell your phone what to do. Use your phone hands-free with voice commands. Tell it to navigate you, and listen to it speak the directions to you as you drive--it'll even reroute you if you've gone off course. Tell it to set alarms, find information on the web, make calls.

Never miss a photo opportunity. Automatically open the camera right from your lock screen. Just twist your phone twice. You can automatically back up your photos and videos with your Google account or with other photo sharing apps available from Play Store.

Store your stuff. You have several storage options. Store apps and content on your phone. For more storage space, use an SD card for photos, videos, and music. You can open stored items in associated apps, like Gallery to see your photos and videos. For even more storage space, plus the ability to access your media and files from any internet-connected device (phone, computer, tablet), use cloud storage. Your Google account includes free cloud storage on Drive, which has its own app and is also available from the ⋖ menu throughout other apps.

Wi-Fi hotspot. You can use your phone as a Wi-Fi hotspot to share your internet connection with your other devices that need internet access (for example, a laptop or tablet).

Reboot phone. In the unlikely event that your phone becomes unresponsive, frozen, shows a blank or black screen, or doesn't respond to the Power button, you can reboot it. Press and hold the Power button for 7 - 10 seconds. The phone will restart normally.

Certain features, services, and applications are network or carrier dependent and may not be available in all areas.

If you had an iPhone

Welcome to Android! Here are some differences between your old iPhone and your new phone.

Your assistant: You've retired Siri. Now, find info and get things done with Google Assistant. Just set up “OK, Google”. Then ask for info or help with everyday tasks.

Apps:

- Goodbye Apple App Store, hello Google Play Store. Play Store is now your default app store. Apps aren't compatible between iPhone and Android. However, many developers make iPhone and Android versions of their apps; if the app stores your data online, then you can switch with little effort. Just download the Android version from Play Store and log in.
- Continue listening to podcasts. You can listen with the Podcasts app. Or, there are lots of podcast apps on Play Store - search for “podcast” in Play Store and download one of your choice.

- Install apps remotely. On a computer, visit play.google.com. Browse apps on the bigger screen and then install them on your phone from your computer.

Your home screen: Your old phone showed all apps on your home screen. With your new phone, you can put shortcuts to your most important apps on your home screen for easy access.

Privacy indicator: On Android, a green indicator means either your camera or mic are being used by an app. On iPhone, an orange indicator means the mic is being used.

In the cloud: Your Google account is your key to cloud storage with Google. If you migrated your contacts to your phone, then you can see them from any device or computer by logging into Gmail. Your Google account includes apps like Calendar and Drive that let you work well with others. And it has apps that let you play too - access your photos, videos, music from any device when you log in with your Google account. Use YT Music to upload your iTunes library.

File sharing: If you used AirDrop on your iPhone, now you'll use Nearby Share to easily share files or links with friends.

About your Google account

Benefits of your account

When you set up your phone, you added a Google account. If you haven't had a Google account before, this is more than just a password you set up for your phone.

A Google account lets you organize and access your personal information and files from any computer or mobile device:

- **Synchronize everything.** Never lose your contacts. Associate them with your Google account if you create contacts on your phone, and view them from Gmail on any computer or by signing into your Google account on any phone. Create emails or calendar events on your phone and view them on any computer. Access your browser bookmarks from any device.
- **Store in the cloud.** Upload your photos, videos, and music to the cloud; get to all of it without taking up space on your phone.
- **Keep your stuff secure.** Your account password secures it all and lets you access it from anywhere.

Maintaining your account

Other than remembering your password, you don’t need to do much maintenance on your Google account - just enjoy the benefits of your secure, synchronized information. However, you can:

- Control how frequently your phone syncs your information.
- Review and manage the information Google collects from you, such as search and browsing history.

Learn about Google apps

Many Google apps, like Gmail, Chrome, Gallery , and Maps are preloaded on your phone. To learn about and download additional Google apps, read Google’s help.

Can't sign in to Google account

If you’re having problems signing in to your account, read Google's support information.

Status bar icons

About status icons

The status bar at the top of the home screen contains icons that help you monitor your phone.

- **On the left,** icons tell you about apps, such as new messages or downloads. If you don't know what one of these icons means, swipe the status bar down for details.
- **On the right,** icons tell you about your phone's battery level and network connections.

A dot means there are more icons to view. Drag down from the top of the screen to see all icons.

What status icons mean

These are the icons from apps that came on your phone and the phone status icons.

Icon	Meaning
	CALLS
	Active call.
	Missed call.
	Speakerphone on.
	Microphone muted.
	NETWORK
	Connected to cellular/mobile network (full signal). Speed of your network connection is also shown. Possible speeds, from slowest to fastest, are 3G, H, H+, 4G, 5G. Available speeds depend on your carrier and your location.
	Connected to different cellular/mobile network (roaming).
	Data Saver is on, preventing apps from using background data.

Wi-Fi network within range.

Connected to Wi-Fi network.

No SIM card.

Location services are in use.

Airplane mode on.

CONNECTIVITY

Bluetooth connected.

Trusted device connected.

Your phone is a Wi-Fi hotspot. Devices can connect to share your data connection.

Wireless display or adaptor connected.

Connected by USB cable.

USB tethering enabled.

SYNC AND UPDATES

App updates are available for download from Play Store.

Email and calendar sync in progress.

Upload complete.

	Download complete.
	Google backup in progress.
	Google backup complete.
	SOUND
	Vibrate.
	DO NOT DISTURB
	Do Not Disturb is on.
	BATTERY
	Battery fully charged.
	Battery charging.
	Battery low.
	Phone is in Battery Saver mode.
	ALARM AND CALENDAR
	Alarm set.
	Upcoming calendar event.
	EMAIL AND MESSAGING

	New Gmail message.
	New text message.
	New voicemail.
	Important alert.
	OTHER ICONS
	Privacy indicator. An app is using your microphone or camera.
	Screen recording in process.
	Focus mode is on.

Apps that you download might show other icons to alert you about their status.

Certain features, services, and applications are network or carrier dependent and may not be available in all areas.

Phone terms you should know

Airplane mode
This mode allows you to use your phone's non-wireless functions (music, games, etc.), while disabling its wireless radio functions that are banned on airplanes during flight.

app
Software that you can download for added functionality, such as games, email apps, bar code scanners and more. Some apps are already on your phone, and more can be downloaded from your phone's app store.

Bluetooth™
A short-range wireless technology you can use to connect a device to other nearby Bluetooth-capable devices and accessories, such as headsets, speakers, printers, etc. Use Bluetooth to make handsfree calls on a headset or in your car, listen to music on wireless speakers, use a wireless mouse or keyboard, or print a document in another room. Set up Bluetooth.

cellular network or mobile network
A network of radio-transmitting towers. You make calls on your phone using radio waves sent between the phone and the network towers. You also send data and access the Internet on this network. Carriers use different technologies to handle these radio transmissions (GSM, CDMA, Edge, 3G, 4G, LTE, HSPA, iDEN).

data
Information sent or received from your phone other than calls and text messages. You may use data when you access the internet, check your email, play games, use apps and more. Background tasks, such as syncing or location services, may also use data.

data usage
The amount of data your phone uploads or downloads over a network in a given period. Your phone uses your carrier's cellular network or over a Wi-Fi network. Depending on your plan with your carrier, you may be charged additional fees when your data usage exceeds your plan's monthly limits.

GPS
Global Positioning System. A global satellite-based system for determining precise locations on Earth.With GPS, your phone becomes your navigator when you're driving and your concierge when you're looking for a nearby meal, movie, or cup of coffee.

mobile hotspot
A device or app that lets you share your mobile data connection with multiple devices via Wi-Fi. You can connect different devices to your hotspot, including notebooks, netbooks, MP3 players, cameras, Smartphones, and portable gaming systems. The number of devices that can connect at one time depends on your carrier and connection speed.

NFC
Near-field communication. A wireless technology that transfers information between two compatible devices. Your phone doesn't support NFC.

notification
An alert from your phone or an app on your phone. Your phone displays icons in the status bar to notify you of new messages, calendar events and alarms. Icons can also indicate ongoing status, such as connection to a Wi-Fi network.

Play Store
Google's store where you can download apps, books, movies, and music. Choose from an assortment of free books or apps; purchase from an even larger selection.

SD card
Secure Digital (SD) card. A small, high-capacity removable memory card used in small, portable devices such as mobile phones, tablets, and digital cameras.

shortcut
An icon you can add to your home screen that lets you quickly open an app. Create shortcuts for apps you use frequently.

SIM card
Subscriber Identity Module (SIM) card. A card that securely stores information your carrier uses to authenticate your phone on the cellular network.

software update
An update to your phone's operating system that typically includes new features and fixes reported problems. The update is wirelessly downloaded to your phone at no additional cost to you.

status bar
Thin bar at the top of your home screen that displays the time and icons that tell you about your phone's battery and network connections. Apps display icons in the status bar to alert you of events, such as new messages.

sync
The process of sharing the same information across multiple devices and websites. Contacts, calendars and email are often synced through cloud services, so you can enter information on one device and access it through another.

Wi-Fi
A short-range wireless technology that provides a high-speed internet connection to wireless data devices. Many locations offer Wi-Fi connections, including airports, hotels, restaurants and more. Using a Wi-Fi connection instead of your cellular network can help reduce your cellular data usage. Some public Wi-Fi

connections may not be secure. You should only connect to those you trust and use some form of internet security on your devices. Set up Wi-Fi.

Certain features, services, and applications are network or carrier dependent and may not be available in all areas.

Learn gestures

You can use gestures on your touch screen to move between apps and choose or manipulate items.

There are also gestures, which you can turn on/off, to perform everyday tasks like screenshots or turning on the flashlight.

Touch, drag, swipe, zoom

Gesture	Description
Touch	Press with one finger and lift. Result: Open something (app or email) or choose something (checkbox, icon).
Touch & hold	Press and wait before lifting one finger. Result: Select something (app icon, text on a page) and see possible actions. Try it: Touch & hold text on this page to see the copy feature.
Drag	Touch & hold an item and then, without lifting, slide your finger until you reach the target position. Result: Move elements on the screen; for example, change a toggle from on to off . Try it: Drag an app shortcut from one spot on your home screen to another.
Swipe	Quickly move one finger across the screen, without pausing when you first touch (so you don’t drag instead). Result: Switch between home screens or between tabs in an app. Or, move quickly through a list. You can swipe different directions (up, down, left/right) for different results. Learn more. Try it: Open the Phone app and swipe left/right to switch between tabs.
Pinch out to zoom	Put two fingers on the screen and then drag them apart. Result: Zoom in to see larger version of photos and maps. Or, open expandable notifications. Try it: Open a photo and pinch out to zoom in on an area.

Tip: If you have visual impairments, you can enable additional magnification gestures.

Pinch in to zoom	Put two fingers on the screen, far apart, and then drag them together. Result: Zoom out to see smaller version of photos or maps. Or, close expandable notifications.

Use gestures with Power button

Press
Lock and unlock the phone. You'll enter your PIN, pattern or password to unlock.

Press twice
Open the camera. If this doesn't work, check that the setting is turned on.

Press & hold
Turn off the phone or view your emergency information.

Move between apps and screens

Choose how to get around

You can change how you move between apps and screens using your touch screen: **Settings** > **Gestures** > **System navigation**.

Use gesture navigation

Use these gestures to move between screens and apps if you chose Gesture navigation and see ——— at the bottom of your home screen.

Action	Gesture to use
Switch between apps	At the very bottom of the screen, swipe left or right.
See all recent apps	Drag up from the bottom, hold, then let go.
See all apps	Swipe up from the bottom of the **home** screen.
Go back	Swipe towards the middle from the left or right edge of any screen.
Go home	Swipe up from the bottom of any screen.

Open Google Assistant	Swipe diagonally from either lower corner of the screen.

Use 3-button navigation

Use these icons to move between screens and apps if you chose 3-button navigation.

- takes you back one screen.
- returns you to the home screen from any app.
- lets you switch between recent apps.

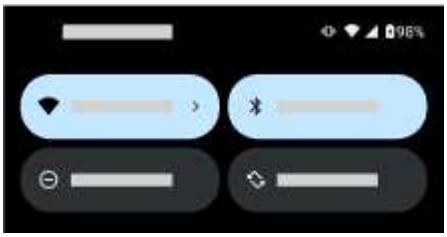
Tip: For visual assistance, you can add to open the Accessibility Menu or magnify what's on the screen.

Use quick settings

Open quick settings

Settings you adjust frequently, like Bluetooth, are “quick settings”, easy to get to from any screen.

To see your first few quick settings, swipe down once from the top of your screen.



Swipe down again to:

- See all quick settings. You can swipe left for more.
- Open the full list of settings available in the Settings app by touching .
- Turn your phone off .

Adjust quick settings

Do one of the following:

- **Touch** an icon to toggle the setting on/off.
- **Touch & hold** an icon to adjust related settings.

Icon	Setting

Internet: Wi-Fi

Internet: Mobile data

Bluetooth

Do Not Disturb

Auto-rotate

Flashlight

Battery Saver

Airplane mode

Scan QR code

Screen Record

Camera access

Mic access

Nearby Share

Data Saver (Appears after you turn on Data Saver the first time.)

Night Light

Wi-Fi hotspot (Appears after you turn on hotspot the first time.)

Extra dim (Appears after you turn on Extra dim the first time.)

You can also slide to adjust screen brightness.

Customize quick settings

You can rearrange quick settings, putting your most used at the top. You can also add or remove them.

1. Open quick settings.
2. Touch .
3. Drag to rearrange. Or swipe up to add new tiles.

To return quick settings to its original state, touch > **Reset**.

Turn screen off and on

Why your screen turns off automatically

- **To save battery power,** your screen turns off if you haven't used it for some time. You can lengthen or shorten the time before your screen automatically turns off.
- **When you bring the phone to your face to speak into it during calls**, the screen turns off to prevent accidental touches. When you pull the phone away from your face, the screen turns on so you can use it. (If the screen stays dark, follow these steps.)

Turn screen off and on manually

To turn the screen on:

- Press the Power button. If you've set up a screen lock, you need to unlock it.
- Your screen automatically turns on when you have an incoming call.

To turn the screen off:

- Press the Power button. When you set down your phone, it's good habit to do this. You prevent accidental touches, save a bit of battery, and keep it secure with the screen lock.
- Tap your home screen twice. (If this doesn't work, turn the gesture on.)
- To keep your screen off and phone quiet when you don't want interruptions, like at night, use Do Not Disturb settings.

When your screen is off, battery-friendly Peek Display notifications fade in and out, showing only notifications delivered since the screen was last on.

Turn off phone

Swipe down twice from the top of the screen, then touch > **Power off**.

Or, press & hold the **Power button**, then touch **Power off**.

Turn flashlight on and off

To turn your flashlight on or off:

1. Open quick settings.
2. Touch .

Or, make a chopping motion to turn the flashlight on or off.

If the camera opens instead of turning on the flashlight, be sure to use a chop gesture, not a twist gesture.

To control the chop gesture:

1. Go to **Settings** > **System** > **Gestures**.
2. Touch **Use Fast Flashlight** and turn it on or off.

Control phone with your voice

Speak a command

Not all languages support voice commands.

You can tell Google Assistant to call people, get directions, send messages, set alarms. Or, ask questions.

1. Get your assistant's attention by doing any of these:
   - Press & hold the Power button. If this doesn't work, turn the gesture on.
   - Touch & hold from any screen.
   - Touch .
2. Ask a question or say a command. For example, you can say “What's the weather today?” or “Set alarm for 7 AM tomorrow.”

   Tip: To see a list of commands, say “Help”.
3. To silence Google Assistant when it's talking to you, touch .

   Google Assistant will stop listening after a few seconds.

Get directions to a location

Navigation and battery life

Navigation is one of the most power-intensive apps, so keep your phone plugged into a high-quality car charger, especially if you're streaming music and/or using Bluetooth (also power-intensive features).

Use voice commands to get directions

1. Touch & hold from any screen. Or, touch .
2. Say “Navigate to [destination].”

Use clock and weather widget

Add widget to home screen

Check the time and get quick access to alarms, your calendar, and the weather.

If the widget is missing, you can restore it by clearing the launcher app's storage. Clearing storage also resets home screen icons to their original settings and removes shortcuts or folders you added to the home screen; it does not remove apps from the app tray.

1. Go to **Settings** > **Apps** > **See all # apps**.
2. Search for and touch **Quickstep**.
3. Touch **Storage & cache** > **Clear storage**.

Set or delete alarms

1. Touch the time.
2. Adjust alarms:
   - To add a new alarm, touch and set the time and ringtone.
   - To use an existing alarm, switch it on. Touch to view or edit its ringtone.
   - To delete an alarm, touch , then touch .
3. To control general alarm settings, like alarm volume and snooze duration, touch > **Settings**.

When an alarm is set, shows in the status bar.

Manage weather forecasts

Display current conditions for your location or for a city you select.

Show temperature and conditions for current location

1. Do one of the following:
   - Touch **Add cities**.
   - Or, touch the current temperature, then touch .
2. Turn **Current location** on.

> **Tip:** To switch between Fahrenheit and Celsius, touch **Temperature unit**.

Add location

1. Do one of the following:
   - If you haven't added locations yet, touch **Add cities**.
   - Or, touch the current temperature, then touch .
2. Touch **Add new location**.
3. Enter a city name or ZIP code, then touch .
4. Touch the city to add.
5. When you add a city, it is set to show on the widget. If you want a different city's weather shown on the widget, select its button from the list of locations.

Remove location

1. Touch the temperature.
2. Touch .
3. Touch next to the city's name.

View forecasts

1. Touch the current temperature on the widget to open the forecast.
2. Then:
   - To switch between forecasts for multiple locations you added, swipe right and left.
   - To see more details on the weather provider’s website, touch an item on the forecast.
   - To change the frequency of forecast updates, touch > **Forecast update period**, then select a duration.

Control weather alert notifications

The widget sends notifications about weather conditions that need special attention.

To turn notifications on or off:

1. Touch the temperature.
2. Touch .
3. Turn **Weather alert notifications** on or off.

View your calendar

Touch the current date to open your calendar, where you can view or add events.

Manage time spent on your phone

Set up Digital Wellbeing

You can get info about how you spend time on your phone, like how often you unlock it and how long you use each app. Then use that info to improve your digital habits.

The first time you use this feature:

1. Go to **Settings** > **Digital Wellbeing & parental controls**.
2. If you want to find this feature as an app, rather than opening Settings, turn on **Show icon in the app list**.

Understand your habits

1. Go to **Settings** > **Digital Wellbeing & parental controls**.
2. Review the chart to see:
   - Time you spent using phone today
   - Which apps you've had on screen and for how long
   - How often you unlocked the phone today
   - How many notifications you've gotten
3. For more information, touch a label on the chart. For example, to see your screen time for the week, touch today's usage time.

Limit daily screen time

For individual apps, you can set a timer that limits the amount you use the app daily.

Tip: To manage your child's screen time, use parental controls.

To set an app timer:

1. Go to **Settings** > **Digital Wellbeing & parental controls** > **Dashboard**.

   Or, **Settings** > **Apps** > **Screen time**.
2. Next to the app you want to limit, touch .
3. Set the total time that you can use the app per day.

When you reach your time limit in an app:

- The app closes.
- Its icon dims and no longer opens the app.

The app timer resets at midnight. To use the app before midnight, go back to the timer in **Settings** and extend its time or delete the timer.

Pause distracting apps to focus

Use Focus mode to pause selected apps for fewer distractions.

1. Go to **Settings** > **Digital Wellbeing & parental controls** > **Focus mode**.
2. Choose which apps you want to pause.
3. Do one of the following:
   - To turn it on, touch **Turn on now**.
   - To have it turn on automatically, touch **Set a schedule**, then select days of the week and start/end times.

When Focus mode is on:

- You'll see in the status bar.
- You won't be able to use the selected apps and won't get notifications from them.

Tip: To add Focus mode to quick settings, open quick settings, touch , then drag the tile where you want it.

To turn Focus mode off:

- Open quick settings and touch .
- Or, on the notification, touch **Turn off now**. (To turn it off for a short period, touch **Take a break**.)

To remove the schedule:

1. Do one of the following:
   - Open quick settings, then touch & hold .
   - Go to **Settings** > **Digital Wellbeing & parental controls** > **Focus mode**.
2. Next to Schedule, touch .

Tip: To mute sounds, stop vibration, and block notifications for all calls and notifications, use Do Not Disturb.

Use parental controls

You can:

- Control your child's access to devices and apps
- Control location settings and view the location of your child's supervised device
- Set daily usage limits, monitor app usage, and remotely lock supervised devices
- Set filters and controls on what your child can browse, purchase, or download using Chrome, Google Search, Play Store, and YouTube

You'll need to set up parental controls on your and your child's devices.

To set up parental controls on this phone:

1. Go to **Settings** > **Digital Wellbeing & parental controls**.
2. Touch **Set up parental controls**.
3. Follow onscreen instructions to set up the phone for child or adult usage.
4. To set up parental controls on the other device, refer to the help for that device.

To learn more, read Google's help.

Use onscreen keyboard

Open, close, resize keyboard

To open the keyboard, just touch an area where you can enter text or numbers.

To close the keyboard so you can see other parts of the screen, touch .

To make the keyboard larger, turn your phone horizontally. If your screen doesn't rotate, check your auto-rotate setting.

Tip: If you installed other keyboards, you'll see next to the navigation buttons when you're typing. To switch to a different keyboard, touch .

Type special characters

Touch & hold a key to see related special characters. For example:

- Touch & hold **.** to see other punctuation marks.
- Touch & hold **e** to see **é** and **3**.

Tip: To insert a period followed by a space, touch the spacebar twice quickly.

Capitalize letters

To type in ALL CAPS, touch twice, quickly, so you see . Touch it once more to turn ALL CAPS off.

To change capitalization of a word you've already typed:

1. Select the word.
2. Touch until you see the capitalization you want: first letter only, ALL CAPS, or lowercase.

Use glide typing

You have two options for entering text: type one letter at a time (multi-touch typing) or slide your finger through all the letters in a word using one continuous motion (glide typing). Start typing either way and switch whenever you like.

When you're using glide typing, you can:

- **Type a word.** Drag your finger over the letters in the word.
- **Enter apostrophes in common words.** Drag through the letters and the apostrophe is automatically inserted.
- **Add a space.** There's no need to use the space bar. Just lift your finger and start the next word.

You can disable glide typing.

Get suggestions

Use suggestions to type faster.

When you're typing, you'll see a list of suggested next words above the keys:

- Touch a word in the list to insert it in your text.
- If you don’t like a suggested word, touch & hold it, then drag it to .

You can limit or turn suggestions off.

Spell check and auto correct

Misspelled words are automatically corrected as you type.

To prevent that word from being auto-corrected again, add it to your dictionary by touching the word in the list of suggestions above the keys.

If auto-correction is turned off, you can still check spelling:

1. After you're done typing, review your text; misspelled words (and words not in your dictionary) are underlined.
2. Touch an underlined word:
   - If the word is spelled correctly, touch it in the suggestion bar.
   - If the word is misspelled, select the correct word in the suggestion bar or type the correction.

Type in multiple languages

If you have added multiple languages as a system language in your phone settings, keyboards and text suggestion are available for those languages:

- When using a keyboard language other than your primary system language, available keyboard languages are shown on the spacebar.
- To toggle between languages, touch .
- To see a list of available keyboards, touch & hold or the spacebar.

You can add keyboards for other languages.

Cut, copy, paste text

You can select and copy text from web pages and messages.

1. To select text, touch & hold a word.
2. Touch **Copy**, **Cut**, **Share**, **Select all** or:
   - Select more text. Drag the sliders .
   - Get information about selected text. Touch **Web Search**.
   - Translate selected text. Touch > **Translate**. (If you don't see this option, install the Google Translate app.)

3. To paste text, touch to insert at the cursor or select a block of text to replace. Then touch **Paste**.

Tips:

- In some apps, you need to double-tap a word to select it (instead of touching & holding it).
- When you use **Copy**, the text is copied to the clipboard in your phone's memory, overwriting previous text in the clipboard. If you want to save and manage everything you copy into the clipboard, search for “clipboard manager” in Play Store to select and download an app.

Use voice typing

1. Touch a text field to show the onscreen keyboard.
2. Touch on the onscreen keyboard.
3. Say what you want to type:
   - Speak naturally but clearly. There's no need to shout or hold the phone close to your mouth.
   - To include punctuation, say “comma,” “period,” “question mark,” or “exclamation point.”
   - To pause or restart, touch .
   - To delete a word, touch .

Fill in forms automatically

Don’t retype your personal information again and again. Save it securely, then with just one touch, fill in passwords, addresses, credit cards, and other information saved to your Google account.

To set it up:

1. Go to **Settings** > **Privacy** > **Autofill service from Google**.
2. Touch **Continue**.
3. Touch categories to review and edit personal information, addresses, credit cards, and passwords.

Change wallpaper

You can change the background image on your home screen or lock screen.

Set the wallpaper

1. Touch & hold a blank area on your home screen, then touch **Wallpapers**.
2. Do one of the following:
   - To set a single wallpaper, select a photo or wallpaper.
   - To use an animated background, select a dynamic wallpaper. Many dynamic wallpapers include settings. Look for or to set options.
   - If you select a wallpaper from a category (such as landscapes), you can see a different image every day. Open the category and touch .
3. Touch or **Set wallpaper**.
4. Select whether you want to use the wallpaper on your home screen, lock screen, or both.

If your photo is too large
Open the photo and take a screenshot of it. Then edit the screenshot as needed and set it as the wallpaper.

If you selected a dynamic wallpaper

If your battery is low, temporarily change wallpaper to a static image to save power.

Use shortcuts or folders

Add app shortcuts

1. Swipe up from the bottom of the home screen to open your app tray.
2. Touch & hold the app you want.
3. Drag the app to an empty spot on your home screen. Or, drag it to the edge of the screen and drop it onto a new home screen.

Add folders

Folders organize your shortcuts.

To create a folder on your home screen:

1. Touch & hold an app shortcut on your home screen.
2. Drag it onto another to group them together, then release when you see a frame around them.

3. To name the folder, touch to open it, then touch its name and type a new name.

To add apps to the folder:

1. Touch & hold the app's icon.
2. Drag it onto the folder.

To remove apps from the folder:

1. Open the home screen folder.
2. Drag the app's icon onto the home screen, or drag it up and drop it on **Remove**.

Remove shortcuts or folders

To remove items from your home screen:

1. Touch & hold it until it vibrates.
2. Drag it to **Remove**.

App icons on the home screen are **shortcuts** to installed apps found in the app tray. Removing an app shortcut from the home screen doesn't uninstall the app. Learn how to uninstall apps.

To select a totally new user interface for your home screen, download a different launcher.

Arrange apps and control icon's look

Adjust icon names

You can shorten the names below the icons in your app tray.

1. Touch & hold a blank space on your home screen.
2. Touch **Home settings**.
3. Adjust settings:
   - To make the icons smaller or larger, touch **Icon size** and move the slider to choose a size.
   - To remove the names below the icons, touch **App label** > **Don't show**.
   - To restore the names below the icons, touch **App label** > **2 rows** (full names) or **1 row** (short names).

Allow or prevent home screen rotation

In quick settings, when you turn Auto-rotate on, apps rotate when you turn your phone. If desired, you can keep your home screen from rotating while other apps auto-rotate:

1. Touch & hold a blank space on your home screen.
2. Touch **Home settings**.
3. Turn **Allow Home screen rotation** on or off.

Remake your home screen with launchers

About launchers

A launcher app defines what your home screen looks like and how you organize and interact with all of your apps. The launcher that came with your phone puts the Google search widget and a clock widget on the home screen. See what that home screen looks like and how you can customize it.

If you want to totally change the look and feel of your home screen, you'll need to download a new launcher and update settings to use that launcher. Launchers frequently include new sets of wallpapers, new gestures for interacting with your phone, and customizable elements for your home screen.

You can switch back to the original launcher and its home screen at any time.

Get different launcher

1. Search for "launcher" in Play Store.
2. Read through the choices and download the one (or more) that you want.
3. To start using it, open the app or follow the onscreen instructions after downloading it.

Switch between launchers

1. Go to **Settings** > **Apps**.
2. Touch **Default apps** > **Home app**.
3. Select the launcher you want to use.

   To switch back to the standard home screen, select **Quickstep**.
4. To adjust its settings, touch .

Delete launchers

You can only delete launchers that you installed.

Touch & hold the launcher's app icon, then drag it to **Uninstall**.

Use a screen saver

Set up screen saver

While your phone is idle on a dock or charger, turn it into a desk clock, a photo frame to show off your pics, or more.

1. Go to **Settings** > **Display**.
2. Touch **Screen saver**.
3. Do any of the following:
   - To change screen savers, touch **Current screen saver**, then select one. To set options for that screen saver, touch .
   - To preview your selection, touch **Use screen saver**. Touch the screen anywhere (unlock if necessary) to return to settings.
   - To adjust when the screen saver starts (while docked, charging, or either), touch **When to start**.

Start screen saver

The screen saver automatically starts when you connect your phone to a dock or charger and the screen turns off.

To exit the screen saver and return to your home or lock screen:

- Press the Power button.
- Or, touch , , or .

To manually start your screen saver any time, go to **Settings** > **Display** > **Screen saver** and turn **Use screen saver** on .

Turn off screen saver

To prevent the screen saver from starting automatically:

1. Go to **Settings** > **Display**.
2. Touch **Screen saver** > **When to start** > **Never**.

Add screen savers

Search for “Screen saver” in Play Store for apps that give you more.

After you install an app, you can select the new ones in **Settings** > **Display** > **Screen saver**.

Open, close, switch apps

Open and close apps

To open an app, touch its icon on the home screen, or swipe up from the bottom of your home screen to open the app tray, then touch the app.

To leave an app, touch .

You don't need to close apps. Android manages the memory and battery that apps use, so you don't need to worry about leaving apps open.

To close one app, touch and swipe up on the app.

To close all apps, touch and swipe right until you see the start of the list, then touch **Clear all**.

Switch between open apps

1. To switch between recently used apps, swipe left or right at the bottom of the screen.

   To see your list of recent apps, drag up from the bottom of the screen, hold, then let go.

2. In the list of recent apps:
   - To see more apps, swipe left or right.
   - To switch to an app, touch it in the list.

View notifications

Find your notifications

Apps send notifications to alert you about things like new messages, calendar events, and alarms.

You can check your notifications from a few places:

- They appear on your lock screen.

- You see them when you swipe the status bar down on any screen.

If you receive multiple notifications from an app, they're bundled together. Swipe down to view more details. Conversation notifications are bundled together at the top of your other notifications so you can easily return to them any time.

Some important notifications pop up briefly over your current app so that you can take action. For example, a notification for an incoming call might appear while you're watching a video, so that you can answer or dismiss the call.

What you can do with lock screen and status bar notifications

Respond from a notification

Many notifications include actions at the bottom that let you complete common tasks without opening the full app. If you have several notifications, these actions are hidden. When you see ⌄, touch it to reveal actions.

Open the app that sent the notification

Swipe down from the top of the screen and touch the notification to open the app.

From your lock screen, touch the notification twice and enter your PIN, pattern, or password to unlock your screen and open the app.

Snooze a notification

Swipe left or right slowly. Then touch and select a duration to snooze notifications. To snooze notifications, first turn on snoozing.

Dismiss a notification

Swipe it sideways. Some notifications, like voicemails, require an action and cannot be dismissed.

Dismiss all notifications

Swipe to the end of your notifications and touch **Clear all**.

Customize your notifications

Use Do Not Disturb to silence all notifications when you don’t want interruptions.

Touch & hold a notification to customize that app's notifications. Then you can:

- Stop all notifications from that app.

- Change the app's notifications to be **Silent** instead of **Default**.

About preloaded apps

Apps that came with your phone

The following apps are preloaded on your phone.

Don’t want some? Delete or disable them. Need other apps? You can download free and paid apps.

Icon	App	Description
	Assistant	Use your voice to control your phone.
	Calculator	Make some quick calculations.
	Calendar	Keep track of your upcoming events, get automatic reminders on your phone, and coordinate with others by sharing calendars.
	Camera	Capture photos or videos.
	Chrome	Browse the web. Access your browser bookmarks from any device, and sync tabs with your computer or Android devices.
	Clock	Set alarms. Use a timer or stopwatch.

Contacts	Organize and connect with your contacts. Assign ringtones to people.
Drive	Store and synchronize your files on Google's cloud, then access them anywhere you have an internet connection. Create and share spreadsheets, documents, and presentations. Scan documents and share or print them.
Facebook	Connect with friends, family, and communities. Share updates and media. Find information on events, entertainment, and businesses.
Files	Browse and manage files and folders stored on your device or SD card.
FM Radio	Listen to FM radio stations.
Gallery	Find and share your photos and videos.
Gmail	Compose, send, view, or search your email from your phone or computer.
Google	Search the web, see your updates, and adjust Google settings, including privacy.
Google One	Get expanded storage, Google support, and other member benefits with a paid subscription.

	Google TV	Get movies and TV shows for instant viewing from Play Store. (Not available in all countries.)
	Maps	Find your destination, explore locations.
	Meet	Make video call with your friends across Android and iOS.
	Messages	Send and receive text messages.
	News	See headlines, weather, and information on your favorite topics and locations.
	Phone	Make calls.
	Play Store	Get apps for your phone, as well as books, magazines, music, and movies and access them from your computer or any Android device.
	Settings	Customize your phone settings.
	Sound Recorder	Record and share audio files.

TikTok	Watch short-form videos. Create your own videos, and apply filters or effects to express yourself.
YouTube	Find, view, and upload videos to the web.
YT Music	Stream your favorite albums, singles, and live performances, and get recommendations for new music.

Get help using an app

1. Open the app.
2. Touch ☰ or ⋮.
3. Look for **Help** or **Settings** > **Help**.

Install or update apps

Get apps from Google Play Store

You can download more apps, in addition to the apps preloaded on your phone.

To download apps:

1. Open the **Play Store** app.
2. Browse by category or search.
3. Touch an item to see a description, read reviews, and download it.

Tips:

- If you don’t want the app’s icon added to your home screen when you install an app, touch & hold a blank space on your home screen, touch **Home settings** > **Home screen style** > **App tray** and turn **Add app icons to Home screen** off .
- To view Play Store apps you've installed on this phone, touch your profile icon > **Manage apps & device** > **Manage** and change **Installed** to **Not installed** to see apps you've installed on other devices using the same Google account.
- To prevent accidental or unwanted purchases, touch your profile icon > **Settings** > **Authentication** > **Require authentication for purchases**.

Get apps from other sources

Before downloading, do some research: check the app's rating and read lots of comments.

To download apps:

1. Open the **Chrome** app and go to the appropriate site to download the app.

   If you see a warning, touch **OK** to continue.

   You'll see in the status bar when the download completes.
2. Touch the download notification to install the app. Or, open the **Files** app to install it later.
3. When installing the app, be sure to review what information the app will access. If you don’t want the app to access this information, cancel the installation. For example, if you're installing an app that makes a shopping list, the app should not require access to your contacts.

Update Play Store apps automatically

Updating your apps gives you the latest features and improves security and stability. For best performance, apps are set to update automatically.

If an app changes the information it wants to access on your phone, you will receive a notification to update the app manually and will be required to review and accept the new permissions.

To control when your apps are automatically updated:

1. Open the **Play Store** app.

2. Touch your profile icon > **Settings**.
3. Touch **Network preferences** > **Auto-update apps**.
4. Select whether apps should:
   - Auto-update over any network
   - Auto-update only over Wi-Fi - save data charges on your cellular plan

Update Play Store apps manually

1. Open the **Play Store** app.
2. Touch your profile icon > **Manage apps & device**.
3. Under **Updates available**:
   - Touch **Update all**.
   - Or, to update a specific app, touch **See details**, then touch **Update** by its name.

> **Tip:** To read the summary of what changed, touch the app name before you update it.

Turn off Play Store auto-updates

To stop a specific app from updating automatically:

1. Open the **Play Store** app.
2. Touch your profile icon > **Manage apps & device**.
3. Touch **Manage**, then touch the app's name.
4. Touch and turn off **Enable auto update**.

To stop all apps from updating automatically:

1. Open the **Play Store** app.
2. Touch your profile icon > **Settings**.
3. Touch **Network preferences** > **Auto-update apps** > **Don't auto-update apps**.

Restore Play Store apps

If you uninstall an app you got from Play Store, you can reinstall it anytime. Have apps you use infrequently, such as a flight tracker? Delete them and easily reinstall when needed.

1. Open the **Play Store** app.
2. Touch your profile icon > **Manage apps & device** > **Manage**.
3. Touch **Installed** and change to **Not installed**.
4. Check the box for each app to re-install, then touch .
5. If you have multiple Google accounts, touch your profile icon and next to your account touch . Select the other account and repeat the process to restore apps downloaded in that account.

Manage or delete apps

Organize apps

To organize apps into groups on your home screen, use folders.

Control app permissions

The first time you use an app, and sometimes when you install, update, or haven't used it for a while, you are asked to grant the app permission to access certain data and phone features.

You can adjust these permissions any time.

To adjust permissions by app:

1. Go to **Settings** > **Apps** > **See all # apps**.
2. Touch the app name.
3. Touch **Permissions**.
4. Turn each permission on or off as needed.

> **Tip:** To see how the app uses each permission, touch ⋮ > **All permissions**.

You can also review each feature and adjust which apps have permission.

Troubleshoot with safe mode

Issues such as apps crashing, unexpected reboots, or fast battery drain could be caused by an app you intalled. Use safe mode to start your phone with only the original software and apps. If the issues go away in safe mode, the problem is probably from an app you downloaded.

To restart in safe mode:

1. Press & hold the Power button.
2. Touch & hold **Power off**. Then touch **OK** to restart in safe mode.

   When it restarts, you'll see **Safe mode** across the bottom of the home screen, and all widgets and third-party apps will be disabled.
3. Use your phone and see if the problem has gone away. Remember, you won’t be able to use any downloaded apps.

If the problem goes away:

1. To exit safe mode, restart your phone.
2. One by one, uninstall recently downloaded apps. After each removal, restart your phone. See whether removing that app solved the problem.
3. Once you delete the problematic app, you can restore the other apps you removed during testing.

If the problem doesn't go away: Try these troubleshooting steps for phone performance issues.

Exit safe mode

Press & hold the Power button, then touch **Restart** .

Or, hold the Power button for about 30 seconds, or until your phone restarts.

Clear app's cache or data

Clearing the cache and data can free up phone memory, improve performance, and fix some problems with apps and web pages.

1. Go to **Settings** > **Apps** > **See all # apps**.
2. Select the app.
3. Do one of the following:
   - To free up space by removing temporary files, touch **Storage & cache** > **Clear cache**. Over time, the cache builds up again, so repeat if a problem occurs.
   - If problems still occur, then delete all data saved in the app by touching **Storage & cache** > **Clear storage**. Be careful - there's no way to undo this.

Force stop apps

Force stop an app only if it seems to be causing a problem. To completely shut down an app, including any background services:

1. Go to **Settings** > **Apps** > **See all # apps**.
2. Touch the app's name.
3. Touch **Force stop**.

Delete apps you installed

You can delete (uninstall) apps that you downloaded. For many preloaded apps, you can disable but not delete them.

1. Go to **Settings** > **Apps** > **See all # apps**.
2. Touch the app's name.
3. Do one of the following:
   - Drag the icon up and drop it on .
   - If you don't see a delete option, touch **Disable**.

Delete apps installed by others

If you are the owner of the phone and shared it with users or guests, you can uninstall apps they installed. Although their apps don't appear in your app tray or on your home screen, they do reduce available storage space.

1. Go to **Settings** > **Apps** > **See all # apps**.

   Apps installed by others show the message **Not installed for this user**.
2. Touch the app name.

3. Touch > **Uninstall for all users**.

Back up to Google

You can automatically back up the following items to your Google account:

- Apps and app data
- Call history
- Contacts
- Phone settings (including Wi-Fi passwords and permissions)
- Photos and videos (synced to your Google Gallery library, not to Google Drive)
- SMS text messages (if using Messages)

Tip: Back up over Wi-Fi to prevent cellular data charges.

Not all apps back up data automatically. Check with the app developer.

To automatically back up to Google Drive:

1. Go to **Settings** > **System**.
2. Touch **Backup**.
3. Check that **Backup by Google One** is on. If needed, turn it on.
4. If you have multiple Google accounts, touch **Account** to select an account.
5. Follow the onscreen instructions.

To back up other files that aren't automatically backed up, like attachments or downloads:

1. Open the Drive app.
2. Touch .
3. Touch **Upload**, then choose the files or folder to upload.

Protect against harmful apps

Scan phone for harmful apps

Play Protect helps keep your phone secure by automatically scanning your apps, including sideloaded apps, to check for potentially harmful apps (malware).

If Play Protect finds a potentially harmful app, it stops the app from running and warns you so that you can uninstall it.

To see the results or to rescan:

1. Open the **Play Store** app.
2. Touch your profile icon > **Play Protect**.
3. Review the results of the latest scan, or touch **Scan**.

Play Protect is on by default.

To learn more, read Google's help.

If your phone seems slow

If you've scanned your phone to confirm there aren't any potentially harmful apps but your phone seems slow, troubleshoot the issue.

Search the web

Search from anywhere

You don't have to leave your current app to search for the info you need. Use Google Assistant from any screen to get search results and options for your next action.

To search:

1. Say “OK, Google” or “Hey, Google”. (Be sure you've set up the launch phrase.)

   Or swipe diagonally from either lower corner of the screen.

2. Tell the assistant what you're looking for. For example, search for a local restaurant by saying “Find [restaurant name].”
3. Below the search result, touch options for related actions: make a call, get directions, read reviews, and more.

For more help with Google Assistant, read Google's support information.

Search with the widget

Type search terms

1. Touch the blank space on the Search widget.

2. Start typing a search term.

   As you type, suggested terms appear.

3. Touch a suggestion to search for it.

Use voice search

Touch to call Assistant. Learn more.

Use camera to search for or translate words

Touch , then follow onscreen instructions.

See more search options and settings

Touch to open the Google app to see search related options and settings .

Search for nearby phone numbers

To find and call a nearby business:

1. Open the **Phone** app.
2. Touch or .
3. Say or type the name of place to call, or a search term about the place (for example, “restaurant”).

   You’ll see a list of nearby search results.

4. Touch the place to dial its number.

If it doesn't work:

- Make sure Location is enabled.
- Touch > > **Settings**, touch **Nearby places** and turn it on .

Delete Google search history

To learn how, read Google's help.

Use search engine other than Google

To use a search engine other than Google:

1. Search for “search engine” in Play Store and install one of the apps.
2. Open that app to search.

Search your phone

Find an app

1. Swipe up from the bottom of the home screen.
2. Touch **Search apps**.
3. Type the app's name.
4. If the app is on your phone, touch its icon to open it.

   If the app isn't on your phone, touch **SEARCH FOR MORE APPS** to go to Play Store and install with one touch.

Find a setting

1. Go to **Settings** .
2. At the top of Settings, touch .
3. Type your search term and touch on the keyboard.
4. In the list of search results, touch a setting to open it.

Find your phone number

1. Go to **Settings** .
2. Touch **About phone** > **Phone number**.

Find photos, videos, files

To find photos or videos on your phone, use the Gallery app.

To find downloaded files, use the Files app.

Browse websites

Visit and bookmark websites

Your phone connects to your carrier's cellular network or to a Wi-Fi network to access the internet. To save data charges on your cellular plan, use a Wi-Fi connection.

1. Open the **Chrome** app.
2. Go to a site by touching the bar at the top and typing the address.
3. On a web page:
   - To bookmark it, touch > ☆.
   - To search for text on that page, touch > **Find in page**.
   - To open a link, touch it.
   - To see options for opening a link in a new tab and copying or sharing a link, touch & hold the link.
   - To print the page, touch > **Share** > **Print**. If you don't see your printer listed, set up your print service.
4. To return to the previous page touch ◀.

To learn more about browsing or managing bookmarks, open Chrome and touch > **Help & Feedback**.

Open and switch browser tabs

In the **Chrome** app:

- To switch tabs, touch the switcher icon 3.
- To open a new tab, touch touch the switcher icon 3, then touch +.

Clear browsing history

1. Open the **Chrome** app.
2. Touch > **History**.
3. Touch **Clear browsing data**.

   To learn more, read Google's help.

You can also review and delete your search history.

Change default browser

You can download other browsers from Play Store. After you've installed one, you can make it your default browser.

1. Go to **Settings** > **Apps**.
2. Touch **Default apps** > **Browser app**.

3. Touch the app to use.

About text and multimedia messages

Text messages - SMS

SMS (Short Message Service) messages contain text only. One text message can contain 160 characters; when you near the limit, a counter appears. If you type more, your message is sent in a series of SMS messages.

You can send one SMS message to multiple people, and replies are delivered in separate, not group, conversation threads (unless you and your recipients have group messaging enabled).

SMS messages are included in most carriers' text messaging plans and do not use cellular data.

Multimedia messages - MMS

MMS (Multimedia Messaging Service) messages can include unlimited text plus a photo, picture slideshow, video, or sound file.

You can send one MMS message to multiple people using group messaging, containing text only or text and media, and replies are delivered in group conversation threads to each person in the group.

MMS messages use cellular data and require a cellular data plan or pay-per-use payment.

Group messaging

Group messaging lets multiple people carry on a group conversation. All replies from recipients are delivered to all recipients, in a group conversation thread.

Though you send one message to multiple recipients, you are charged for each message received. Group messaging:

- Converts multiple-recipient SMS messages to MMS for all who can receive them
- Is available for MMS messages only

Note: Recipients who cannot receive MMS messages receive SMS instead and, if media is attached, a link to download it over Wi-Fi (when offered by carrier). Replies are to the sender only, in an individual conversation.

If you don’t want to receive replies in group conversations, you can turn off group messaging in the Messages app.

Read, send messages

Read and reply to a message

When you receive a text message with the Messages app, you'll see in the status bar.

1. Swipe the status bar down and touch .
2. To respond, type in the text box and touch .

3. Optionally:
   - To open an attached photo or file, touch it.
   - To save an attachment, touch & hold it, then touch > **Save**.
   - If the message is important, star it so you can find it later.
   - If the message is from an unassigned number, create a contact to associate a name with that number.

Tips:

- You can control message notifications, changing the sound or turning them on/off.
- If you don't want multi-recipient SMS messages converted to MMS and want replies sent in separate conversations (threads) to you only, turn off group messaging.
- To protect your privacy, you can hide sensitive content for lock screen notifications.

Send a message

1. Open the **Messages** app.
2. Touch .
3. Enter recipients, then type the message.
4. Optionally:
   - To add an attachment, touch .
   - To add a smiley or other icons, touch on the onscreen keyboard.
   - If you're using two SIMs and want to switch to the other to send the text, touch and select the SIM.
5. Touch .

Add or save attachments

Add attachment

1. In the **Messages** app, compose a reply or a new message.
2. Do one of the following:
   - Touch & hold to start recording a voice message. When done, lift your finger.
   - Touch to capture or attach a photo or video, or attach a contact card.
3. Touch .

If you're having trouble attaching files, check that:

- Cellular data is turned on.
- Your data plan supports MMS (multimedia messages).

Save attachment you received

In the message, touch & hold the attachment, then touch > **Save**. Or, touch the attachment to open it and look for save options.

If you don't save an attached photo or video, it is kept within the message only. So, if you delete the message, you also delete the attachment. (You can try to recover recently deleted messages.)

View saved attachments

For photos or videos, open the Gallery app and touch **Folders** > **Messages**.

For other attachments, open the Files app.

Manage drafts

When you begin composing a text message reply or a new message with recipients, it is saved in your message list as a draft until you send or delete it.

1. Open the message list and touch the conversation marked **Draft**.
2. Do one:
   - Finish composing the message and touch .
   - Delete the characters in the text field to delete the draft.

Forward a message

1. Open the **Messages** app.
2. Open the conversation.
3. Touch & hold the message.
4. Touch > **Forward**.

Copy text from a message

1. Open the **Messages** app.
2. Open the conversation.
3. Touch & hold the message.
4. Touch .

You can now paste it elsewhere, like in an email you're composing.

Manage, delete messages

Keep track of important messages

To access your important messages and conversations in the Messages app:

Star messages you want to find later.

Pin up to 3 conversations to keep these groups of messages at the top when you open the app.

Pin/unpin conversations

To pin a conversation:

1. Open the Messages app.
2. In your conversation list, touch & hold the conversation.
3. Touch .

To unpin a conversation, touch & hold it, then touch .

Star messages

1. Open the conversation that has the message you want to star.
2. Touch & hold the message.
3. Touch .

To remove a star, on the message, touch .

Find starred messages

To find starred messages across all conversations, go to the top of your conversation list and touch > **Starred**.

To find starred messages within a specific conversation, open the conversation and touch > **Starred**.

Delete or archive texts

When you delete a message, you also delete any attached photos or videos. If you want the attachments, be sure to save them before deleting the message.

- To delete a single message, open the conversation (thread) and touch & hold the message, then touch .
- To delete or archive all messages in a conversation, touch & hold the conversation, then touch to delete or to archive.
- To delete or archive multiple conversations, touch & hold the first conversation, then touch the other conversations to select them, and touch or .
- To see archived messages, touch > **Archived**.

Control notifications for text messages

If you use the Messages app:

1. Open the **Messages** app.
2. Touch your profile icon > **Messages settings**.
3. If you have dual SIMs, touch **General**.

4. Touch **Notifications** and:
    - Turn notifications on or off
    - Change the sound
    - Add or remove vibration

If you use a different messaging app:

1. Go to **Settings** > **Apps** > **See all # apps**.
2. Touch the app's name.
3. Touch **Notifications**.
4. Make changes.

Tip: In your phone settings, you can prevent interruptions by restricting text message notifications during hours you specify or from specific people.

Request text delivery reports

See whether recipients receive your messages by requesting delivery reports.

1. Open the **Messages** app.
2. Touch your profile icon > **Messages settings**
3. If you have dual SIMs, touch the SIM.

   If you have one SIM, touch **Advanced**.
4. Turn on **Get SMS delivery reports**.

Turn group messaging on or off

Group messaging allows conversation participants to reply to all recipients in a single thread. If you do not want multi-recipient SMS messages converted to MMS and want replies sent in separate threads only to you, turn off group messaging.

This feature is not available in all countries.

To adjust the group messaging setting:

1. In the Messages app, touch your profile icon > **Messages settings**.
2. If you have dual SIMs, touch the SIM.

   If you have one SIM, touch **Advanced**.
3. Touch **Group messaging** and select an option.

Change default messaging app

You can download additional messaging apps from Play Store. After you've installed one, you can make it your default messaging app.

To select a different app to send and receive text (SMS) and multimedia (MMS) messages:

1. Go to **Settings** > **Apps**.
2. Touch **Default apps** > **SMS app**.
3. Touch the app to use.

Change text message reply to incoming calls

When your phone rings, you can drag towards to see a list of quick responses you can send by text message instead of answering the call.

To edit these quick responses:

1. Touch .
2. Touch > **Settings**.
3. Touch **Quick responses**.
4. Touch one of the responses to edit it.

Read, send, manage emails

Read email

If you've set up email, you'll start receiving emails after your account syncs with your phone. When you receive an email notification, you'll see in the status bar.

1. To open email from a notification, swipe the status bar down and touch the notification:
   - A single email notification opens the message directly.
   - A multiple email notification opens the email list; touch an email to open it.

   If you dismiss the notification and want to view the email later, open the **Gmail** app.
2. Do any of the following:
   - To view other folders, touch from your email list.
   - Attachments appear at the end of the email. You can view or save them.
   - You can print emails from your phone.

Reply to or forward an email

1. Touch to reply to the sender. Or, swipe to the end of the email and touch to reply to all recipients or to forward.
2. Enter your message.
3. To copy someone on the email, in the To field, touch .
4. Touch .

Send new email

1. Open the **Gmail** app and touch **Compose**.
2. Enter the recipient and your message.
3. To copy someone on the email, in the To field, touch .
4. Touch .

Add attachment to email

1. In the email you're composing, touch > **Attach file** to add a file stored on your phone, or attach one saved on Drive.
2. Browse to the file, and touch it to add it to the email. The attachment appears at the bottom of the email.

Find emails

When you open the Gmail app, you see your Inbox.

To view sent email, drafts, recently deleted email, and other categories, touch ☰.

To search for emails, at the top of your email list enter terms, like the topic or the sender's name.

Delete emails

To delete an open email, touch 🗑.

To delete multiple emails, go to your email list, touch & hold the first message, then touch the other messages to select them, and touch 🗑.

To delete large quantities of email, sign into your email account on your computer, and see your email provider's help for more information.

Tips:

- To delete attachments that you saved from emails, use the Files app.
- You can also remove email accounts from your phone.

Learn more

For more help with Gmail, read Google's support information.

For help managing email from other providers, sign into your email account on your computer and look for the provider's instructions.

View email attachments

View attachments

Attachments appear at the end of an email.

To view or play the attachment, touch it.

If you see a message that you can't open the attachment type, most file types have a free viewer that you can use. In Play Store, search for the file type, then select and download an app.

Save attachments from email

In the email, touch ⬇ on the attachment to download and save it on your phone, or touch △ to save it in Drive.

To view attachments later, open the **Files** app (go to Download) or the **Drive** app.

Delete attachments saved from email

1. Open the **Files** app.

2. Touch **Browse** > **Downloads**.
3. Do one of the following:
   - To select one item, touch & hold it.
   - To select multiple items, touch & hold the first one, then touch the others.
4. Touch .

Prevent previews of attachments

Attached photos or videos appear as thumbnails, showing a preview.

To see a generic thumbnail instead of a preview thumbnail until you open the file:

1. Open the **Gmail** app.
2. Touch > **Settings**, then touch the account name.
3. Touch **Images** > **Ask before displaying external images**.

Add email signature

To add a signature automatically to the end of emails you send:

1. Open the **Gmail** app.
2. Touch > **Settings**.
3. Select the account.
4. Touch **Mobile Signature** and edit the text you want to appear at the end of every email.

Control email notifications

You can control whether you see notifications when you receive an email.

1. Go to **Settings** > **Apps** > **See all # apps** > **Gmail**.
2. Touch **Notifications**.
3. Adjust notification settings.

Tip: To automatically silence notifications during hours you specify, use Do Not Disturb.

About the calendar

Keep track of upcoming events and get automatic reminders on your phone with your calendar. Google calendars let you save all your events in one place, which is secure, synced, and accessible from any web-enabled device or computer when you've signed in to your account.

You can:

- Review existing events.
- Create new events.
- Control notifications for events.

Your calendar can automatically create new events based on your incoming Gmail messages. For example, if you make restaurant reservations or book a flight, these events will show up automatically on your calendar; you don't have to add them.

If you created multiple calendars within your Google account, or if you have multiple Google accounts on your phone, you can control which events are synced with your phone.

Find calendar events

Open calendar events

You'll see in the status bar to alert you of upcoming events. Just swipe the status bar down and touch the notification to see the event details in your calendar.

To see your list of upcoming events, open the Calendar app.

Get around the calendar

To glance at the month view:

1. Touch the month's name.
2. Touch a date to jump to it and see its events.

To change the view:

1. In your calendar, touch .
2. Touch **Schedule**, **Day**, **3 days**, **Week** or **Month**. This view remains the default until you change it.

From these views, you can:

- **Read or edit event details.** Touch the event to open it and touch to edit it.
- **Add new events.** Touch .
- **Search your calendar.** Touch .

Create and manage events

Create calendar events

As you're creating an event, you'll see suggestions for the event titles, locations, people, and more. In some cases, these suggestions are personalized based on information associated with your Google account and your previously created events.

1. Open the **Calendar** app and touch + > **Event**.
2. If you have multiple accounts, touch the account for the calendar you want.
3. Enter the start time and other details.
4. If you want a reminder sent to your status bar, touch **Add notification** and select how long before the event you want a reminder.
5. Touch **Save**.

Edit or delete calendar events

1. Touch an event to open it.
2. Do any of the following:
   - To edit it, touch ✎.
   - To delete it, touch ⋮ > **Delete**.

Control which events are shown

To temporarily hide calendar events for a Google account you don't need to see all the time:

1. Open the **Calendar** app and touch ☰.
2. Beneath the account name, touch **Events**. If you have multiple calendars for that account, touch the name of each calendar to hide its events.

> **Tip:** When you hide events, the calendar still syncs with your Google account. To prevent that account's calendar from automatically syncing, from the home screen go to **Settings** > **Passwords & accounts**.

To exclude automatically-generated events created from Gmail (for events such as flight bookings and restaurant reservations):

1. Touch ☰ > **Settings** > **Events from Gmail**.
2. Under the name of the account, turn **Show events from Gmail** off.

To learn more, open Calendar and touch ☰ > **Help & Feedback**.

Control notifications for calendar events

1. Go to **Settings** > **Apps** > **See all # apps** > **Calendar**.
2. Touch **Notifications**.
3. Adjust notification settings.

If you have assigned a ringtone for the notification but you silence your phone, your phone won't play the ringtone.

Tip: To automatically silence notifications during hours you specify, use Do Not Disturb.

Set alarms

Set alarm by touch

1. Open quick settings by swiping down twice, then swipe right and touch .
2. Adjust alarms:
   - To create a new alarm, touch .
   - To use an existing alarm, switch it on.
   - To change an alarm's sound, schedule or label, touch .
3. To control general alarm settings, like alarm volume and snooze duration, touch > **Settings**.

Set alarm by voice

1. Touch & hold from any screen. Or, touch .
2. When prompted to speak, say your command. For example: “Set alarm for 7:45 p.m., label, switch the laundry” or “Wake me up at 7 a.m. tomorrow.”

   Your phone sets the alarm and provides a confirmation.

When an alarm is set

You'll see in the status bar.

To adjust it, open quick settings by swiping down twice, then swipe right and touch .

Delete an alarm

1. Open the **Clock** app.
2. Touch
3. Touch > .

Use timer or stopwatch

Use timers

You can set multiple countdown timers with labels to keep track:

1. In the Clock app, touch for the Timer tab.
2. Enter the time to count down.
3. Touch .

4. Do any of the following:
   - To pause the countdown, touch ❙❙.
   - To add a label to the timer, touch the current name and change it (helpful when using multiple timers).
   - To add a minute to the countdown, touch **+ 1:00**.
   - To reset the counter to the original time, touch ↺.
   - To add a timer, touch +.
   - To delete a timer, touch ×.
   - To change the timer's sound, touch ⋮ > **Settings** > **Timer sound**.
   - If you leave this app, quickly return to it by swiping the status bar down with one finger to see the timer notification and remaining time. To open the timer, touch the notification.

Use a stopwatch

Record your time.

1. In the Clock app, touch ⏱ for the Stopwatch tab.
2. Touch ▶.
3. Do any of the following:
   - To pause the stopwatch, touch ❙❙.
   - To record laps (or multiple durations) while the stopwatch is running, touch ⏱.
   - To reset the counter to zero, touch ↺.
   - If you leave this app, quickly return to it by swiping the status bar down with one finger and touching a control. To open the stopwatch, touch the notification.

Set date and time

Change time format

1. Go to **Settings** > **System** > **Date & time**.
2. To change how times are displayed:
   - To use military time such as 13:00, turn **Use locale default** off and turn **Use 24-hour format** on.
   - To use the time format of your current location, turn **Use locale default** on.
   - To use 12-hour format, turn both **Use locale default** and **Use 24-hour format** off.

Set date and time automatically

1. Go to **Settings** > **System** > **Date & time**.
2. Turn **Set time automatically** and **Use location to set time zone** on .

Your phone automatically syncs with the local time (using the mobile network). The local time is used for alarms and is displayed on the lock screen and other displays.

Set date and time manually

1. Go to **Settings** > **System** > **Date & time**.
2. Turn **Set time automatically** off .
3. To make corrections, touch **Date** and **Time**.

Switch time zones

1. Go to **Settings** > **System** > **Date & time**.
2. Turn **Set time zone automatically** off .
3. Touch **Time zone**. Then choose a regional time zone (which is applied to the current time).

Show multiple time zones

You can view multiple time zones in the Clock app, so you can coordinate plans with friends and co-workers in other cities, or stay in touch with family back home when you're traveling.

1. Open the **Clock** app and touch .
2. To add time zones, touch , then select cities in the time zone you want to view.

Show home time zone

When traveling, you can view your home time zone in the Clock app.

1. Open the **Clock** app and touch .
2. Touch > **Settings**.
3. Turn **Automatic home clock** on .

Add contacts

Add contacts automatically

When you add an account to your phone, the contacts for that account are available on your phone automatically.

Add contact with Contacts app

1. Open the **Contacts** app.
2. Touch .
3. If you're using more than one account, the account that will be synced with your new contact appears at the top. To change accounts, touch .
4. Touch a text box to type the name and details. Fill in as much or as little information as you'd like.

   Tips:

   - To add a photo, touch . Choose a photo you've saved, or take a photo and crop it.
   - You can assign a custom ringtone for calls from that contact.
   - If you have multiple accounts on your phone and want to change the default account for new contacts, in the Contacts, touch your profile icon > > **Default account for new contacts**.
5. Touch **Save**.

Add contact from text message

You can easily create a new contact or add a new number for an existing contact when you receive a text message from an unassigned number.

1. Open the **Messages** app.
2. In the message list, touch & hold the number, then touch > **Add Contact**.
3. Touch .
4. Do one of the following:
   - To add to an existing contact, start typing the contact's name in the search field, then select it.
   - To set up a new contact, touch **Create a new contact** and add contact details.
5. Touch or **Save**.

Other ways to add contacts

- Save a recent call as a contact.
- Have someone send you a name card.

Edit or delete contacts

Edit contacts

After creating a contact, you can change the name, photo, and other contact information.

1. Open the **Contacts** app.
2. Touch the person's name.
3. Adjust settings as needed:
   - To assign a custom ringtone, touch > **Set ringtone**.
   - To send calls directly to voicemail, touch > **Route to voicemail**. You can also block calls.
   - To edit contact info, touch , then touch a field to make changes, touch to change the photo, or touch > **Discard** to undo changes.

Merge contacts

If you have two contacts for the same person, you can merge the information (including all emails and phone numbers) into a single listing.

Automatically merge contacts

1. Open the **Contacts** app.
2. Touch .
3. Touch .
4. Touch **Merge duplicates**.

   If you don’t see this option, contacts can't be automatically merged.
5. Select options to merge one or all duplicates.

Merge contacts manually

1. Open the **Contacts** app.
2. Touch & hold the primary contact to merge.

   By default, this contact’s name is used for the new listing.
3. Touch the second contact.
4. Touch > **Merge**.

Tip: You can edit the primary contact name (for the merged listing), or delete or change other contact information as needed.

Delete contacts

You can delete contacts created and stored on your phone. If the contact is synced from a social network account, you need to delete the contact in that account. For example, a Facebook contact must be deleted from within your Facebook account. Or, hide Facebook contacts on your phone by filtering your contact list.

Delete one contact

1. Open the **Contacts** app.
2. Touch the person's name.
3. Touch > **Delete** and confirm the deletion.

Delete multiple contacts

1. Open the **Contacts** app.
2. In your contact list, touch & hold the first contact.
3. Touch the other contacts to delete.
4. Touch .

Star your favorite contacts

Contacts you mark as favorites appear at the top of the list in the Contacts app and on the tab in the Phone app.

To add someone to your favorites:

1. Touch the contact icon (photo or other icon).
2. Touch .

Sort contacts

Sort contacts in Contacts app

1. Open the **Contacts** app.
2. Touch your profile icon > .
3. Set options:
   - To sort by first or last name, touch **Sort by**.
   - To list names with first name first or last name first, touch **Name format**.

Sort contacts in Phone app

1. Open the **Phone** app.

2. Touch > **Settings** > **Display options**.
3. Set options:
   - To sort by first or last name, touch **Sort by**.
   - To list names with first name first or last name first, touch **Name format**.

Narrow which contacts are shown

In the Contacts app, you can narrow which contacts are shown. These changes don't affect which contacts are shown in the Phone app.

In the **Contacts** app:

- To show contacts from only one account or all accounts, touch your profile icon , then select the account(s).
- To narrow which contacts are shown from your account, touch > **Customize view**.

In the **Phone** app, use the tab to see only contacts you call frequently or have starred as favorites.

To remove contacts from this tab, touch & hold the contact, then touch .

Share contacts

Ways to share contacts

You can share one or all contacts by sending a name card file (.vcf).

You can also share a contact's information as a text message attachment.

Share one or a few contacts

1. Open the **Contacts** app.
2. Touch & hold a name to select it, then touch others to select more.
3. Touch .
4. Select the way to share.

Export all contacts

1. Open the **Contacts** app.
2. Touch > .
3. If you use more than one account, select the account.
4. Touch **SAVE** to save it in your Downloads folder.
5. Open the **Files** app.
6. Go to **Downloads**.

7. Touch & hold the file.
8. Touch .
9. Select the way to share.

Receive a name card file

1. When someone sends you a name card file, you'll see a file transfer notification. Touch the notification and accept the file transfer.
2. Touch the name card file (.vcf) to open it and add the person to your contacts.

Answer calls

Answer incoming call

When you receive a phone call, the Incoming call screen shows the caller ID. If you miss a call, you'll see in the status bar.

To answer an incoming call:

- On the Incoming call screen, touch **Answer**.
- On the lock screen, swipe up to answer a voice call, or swipe the caller's icon/picture up to answer a video call.

During a call, you can use the keypad to enter numbers or codes, use speakerphone or a paired Bluetooth device, and add other people to the call. Learn more.

Tip: You can save a recent call as a contact.

Auto answer on headset

Not all carriers support this feature.

You can set your phone to automatically answer calls after 2, 5, or 10 seconds when you're using a headset (wired or Bluetooth).

1. Touch .
2. Touch > **Settings**.
3. Do one of the following:
   - If your phone has one SIM card, touch **Calls**.
   - If your phone has dual SIMs, touch **Calling accounts** and select the SIM.
4. Touch **Auto answer on headset** and select a duration.

Hear caller ID announcement

To hear the caller's name and number read out loud for incoming calls, or to turn the announcement off:

1. Open the **Phone** app.
2. Touch > **Settings** > **Caller ID announcement**.
3. Touch **Announce Caller ID**, then select when you want to hear it.

   To turn the announcement off, select **Never**.

Dismiss incoming call

If you don’t want to talk to the caller, you can:

- **Divert the call to voicemail.** On the Incoming call screen, touch **Decline**. Or, on the lock screen, press the Power button. You can also automatically divert all calls from a specified number to voicemail.
- **Respond with a text message.** On the lock screen, touch . You can customize these default messages.
- **Block all calls from that number.**

Control ringtones and notifications

You can:

- **Quickly silence the ringer.** Press Volume Down on the side of the phone.
- **Silence by setting face down.** In the Phone app, touch > **Settings** > **Advanced** and turn **Flip To Silence** on .
- **Silence ringtones during hours you specify.** Use Do Not Disturb.
- **Choose a unique ringtone for specific people.** You'll know instantly who's calling.
- **Get notified of incoming calls when you're on a call.** Set up call waiting.
- **Set the number of rings before sending a call to voicemail.** Dial into voicemail, then follow your carrier's prompts to change this setting.

Fix an issue

If your phone isn't ringing for incoming calls, look for in your status bar. Open quick settings and turn Do Not Disturb off. Your phone will ring for incoming calls. Check your settings to make sure your phone is screening calls at the appropriate times.

If you're having other issues, try these troubleshooting steps.

Make calls

Make a call

1. Touch .
2. Touch and enter a number.
3. If you enter a wrong number, touch .
4. Touch to call the number.
5. To hang up, touch .

Other ways to make calls

You can place calls from:

- The Phone app

- The Contacts app
- Other apps that show contact information. Wherever you see a phone number, you can usually touch it to dial.

In the Phone app, you can place calls in several ways.

To	Do this
Dial a number	Touch , enter a number and touch . If you enter a wrong number, touch .
Dial by voice	Touch and say a name or number. (If you don't see , swipe down to close the dialer.) Or, skip the Phone app entirely and say a voice command.
Call by name	Start typing the name in the search box. You'll see a list of matches. Just touch one to call. (If you don't see , swipe down to close the dialer.) Or, to see your contact list, touch . Swipe through and touch the person to call.
Call a favorite	Touch the tab.
Call nearby place	Touch and say or type the name, then touch the search result to place the call. Learn more.
Return call	Touch , then touch next to the number.

Tips:

- You can save a recent call as a contact.

Change default calling app

You can download additional calling apps from Play Store. After you've installed one, you can make it your default calling app.

1. Go to **Settings** > **Apps**.
2. Touch **Default apps** > **Phone app**.
3. Touch the app to use.

Fix an issue

To change your caller ID information seen by people receiving your calls, contact your carrier.

If you're having other issues, try these troubleshooting steps.

During a call

Adjust sound during call

While listening, you can:

- **Adjust the volume.** Use the Volume button on the side of the phone.
- **Switch between earpiece, loudspeaker, or connected Bluetooth device.** Touch .
- **Use a paired Bluetooth device.** Touch to use or stop using the device.
- **Mute your microphone.** Touch . You can hear the caller but they can't hear you.

Enter a number

Touch on the call screen to use the numeric keypad.

Use other apps

When you hold your phone to your ear, the screen goes dark to avoid accidental touches. To wake it up, move it away from your ear or press the Power button.

To hide the call and use other apps, swipe up from the bottom of the screen.

To return to the call, swipe the status bar down and touch **Ongoing call**.

Answer call waiting

If call waiting is active and a new call comes in, you can answer it. Touch **Hold and Answer Voice**. The first call is put on hold.

To switch between calls, touch .

To merge the calls, touch .

Record calls

Not all carriers and countries support this feature.

To record an incoming or outgoing call:

- On the call screen, touch to start and to stop.
- You can't start recording when you're on mute, on hold, or on conference calls.
- When you start recording a call, for legal purposes, a voice announces the call is being recorded. You can't turn off the announcement.

To play or share the recording:

1. In the Phone app, touch .
2. In the list of recent calls, means the call was recorded. Touch the call.
3. Then:
   - Touch to play the recording.
   - Touch to share it.
   - To delete it, swipe the recording left.

Recording a conversation without the consent of the other party is illegal in most countries. Know your country's laws before recording a call.

End the call

Touch on the call screen.

Or, swipe down from the top of any other screen to view the call notification and touch **Hang up**.

Make video calls

Make video call with Meet app

Meet lets you video call anyone in your contact list who also uses Meet. Android users can get it from Play Store, and iPhone users can download it from the iTunes App Store. The video calls are secure and can’t be seen by others.

To get started, open the Meet app and follow the onscreen instructions to set it up.

For more information, touch > **Help & Feedback**.

Get an app to make video calls

There are many video calling apps to choose from on Play Store (like WhatsApp, Skype, and more).

1. Open the **Play Store** app.
2. Search for “video calls”.
3. Download the app you want to use.

Make conference calls

To make a conference call:

1. Call the first person.

2. To call the next person:
   a. Touch .

      This puts the first call on hold.

   b. Enter the number.
   c. Touch .
3. To join the calls after the second person answers, touch .

Block calls and texts

About blocking

If you don’t want to get calls or texts from a certain phone number, you can block it. When the number tries to contact you, your phone declines automatically.

Block a number

Use either app to block both calls and texts from a number.

From the Phone app:

1. Touch .
2. Touch & hold a call from the number to block.
3. Touch **Block/report spam**.
4. If you don’t want to report the number as spam to Google, remove the checkmark.
5. Touch **Block**.

From the Messages app:

1. Touch & hold the conversation thread from the number to block.
2. Touch > **Block**.

   Or, touch (for numbers saved in your contacts).
3. If you don’t want to report the call as spam to Google, remove the checkmark.
4. Touch **OK**.

Block all numbers for a contact

1. Open the **Contacts** app.
2. Touch the person's name.
3. Touch > **Block numbers**.
4. If you don’t want to report the call as spam to Google, remove the checkmark.
5. Touch **Block**.

On the contact screen, you'll see by the blocked numbers.

Block calls from unidentified callers

1. Open the **Phone** app.
2. Touch > **Settings** > **Blocked numbers**.
3. Turn **Unknown** on .

Your phone will block calls from private or unidentified numbers. You'll still receive calls from phone numbers that are stored in your contacts.

Unblock a number

From the Phone app:

1. Touch > **Settings** > **Blocked numbers**.
2. Touch by the number to unblock.

From the Messages app:

1. Touch > **Spam & blocked**.
2. Touch the blocked conversation.
3. Touch **Unblock**.

Identify and block spam callers automatically

For numbers that aren't in your contacts, Google can provide information about the number and warnings about potential spam callers.

1. Touch .
2. Touch > **Settings** > **Caller ID & spam**.
3. Turn **See caller and spam ID** on .
4. To prevent ringing and notifications from suspected spam calls, turn **Filter spam calls** on .

   You won't receive notifications for these calls, but you'll see them in your call history and can check any voicemail you receive.

When Caller ID & spam is on:

- If you see “Suspected spam caller” or “Spam” for an incoming call, you can answer the call or block and report the number.
- Your phone may need to send information about your calls to Google.
- It doesn’t control whether your number shows when you make calls.

If you don't want Google to identify spam callers, touch > > **Settings** > **Caller ID & spam** and turn it off .

Turn call waiting on and off

When you’re on a call and a new call comes in, the new call is sent to voicemail. If you want to be notified of new calls instead, turn on call waiting.

Note: Some carriers automatically control call waiting. If you do not see this option on your phone, contact your carrier for more information.

To turn call waiting on:

1. Open the **Phone** app.
2. Touch > **Settings**.
3. Do one of the following:
   - If your phone has one SIM card, touch **Calls**.
   - If your phone has dual SIMs, touch **Calling accounts** and select the SIM.
4. Touch **Additional settings**, then turn **Call waiting** on.

When call waiting is on, if you're on a call and a new call comes in, you can answer it. The first call is put on hold. Touch to merge the two calls.

To turn call waiting off, go to **Additional settings**, then turn **Call waiting** off

View and delete call history

See your call history

To see all recent calls:

1. Touch .
2. Touch .

3. You'll see one or more of these icons next to each call:

Icon	Meaning
	Missed call (incoming)
	Call you answered (incoming)
	Call you made (outgoing)

4. To learn more about a call, touch it, then touch .

To see only your missed calls:

1. Touch .
2. Touch > **Call history**.
3. Touch **Missed**.

Save recent call as contact

You can save a number to make it easy to find and call back later.

To save a number:

1. Touch .
2. Touch .
3. Touch the number.
4. Touch **Add Contact**.
5. Select whether to save it to an account or the phone.
6. Do one of the following:
   - To add to an existing contact, touch **Add to existing**.
   - To set up a new contact, add contact details.
7. Touch or **Save**.

Delete calls from history

Caution: There’s no way to restore the history after you delete it.

To delete one call:

1. Touch .
2. Touch .
3. Touch & hold the number.
4. Touch .

To delete all calls:

1. Touch .
2. Touch > **Call history**.
3. Touch > **Clear call history**.

Make emergency call from locked phone

In an emergency, you don't need to unlock your phone to dial an emergency number (for example, 911 in the US or 112 in Europe).

To dial an emergency number from a locked screen:

1. Swipe up on the lock screen.
2. Touch **Emergency call** to see the dialer.
3. Enter the emergency number for your region and touch .

When you make an emergency call, Emergency Location Service automatically sends your location to emergency responders.

You can also set up an emergency SOS.

Use voicemail

Listen to voicemail

If you've set up voicemail, you'll see in the status bar when a new voicemail message arrives.

1. Do one of the following:
   - Swipe the status bar down and touch .
   - Or, touch , then touch & hold 1.
2. When connected, follow your carrier's system prompts.

If you listen to a new message and disconnect from voicemail without saving or deleting it, you will still see in the status bar.

Manage your mailbox

Your carrier provides your voicemail system.

1. Do one of the following:
   - Swipe the status bar down and touch .
   - Or, touch , then touch & hold .
2. When connected, follow the prompts to manage your messages and mailbox.

Contact your carrier for help with:

- Recovering or resetting your password/PIN for voicemail
- Replaying messages
- Saving, forwarding, or deleting messages
- Replying with or sending voice messages
- Changing number of rings before connecting call to voicemail
- Changing greeting or recorded name
- Changing notification options
- Changing mailbox language

Fix an issue

If remains in your status bar after you listen to your voicemails, try the following.

First, force stop the app:

1. Touch & hold .
2. Touch .

3. Touch **Force stop**.

   This restarts the app and should remove the notification.

If that doesn't help:

1. Call yourself from another phone and leave a short message.
2. Go into your voicemail and delete this message, but wait to hang up until the notification icon has disappeared from your status bar.

Send all calls from contact to voicemail

To send all calls from a certain person to voicemail:

1. Open the **Contacts** app.
2. Touch the contact's icon.
3. Touch > **Route to voicemail**.

Tip: You can also block all calls and text messages from a number.

Take photos

Open the camera

Do any of the following:

- Touch .
- Press the Power button twice quickly. (If this doesn't work, set up the gesture.)
- From the lock screen, swipe left.

Take a photo

1. If needed, adjust settings such as flash or photo size.
2. Frame your subject:
   - To zoom, pinch in or out.
   - To set focus location, touch the viewfinder then drag the focus ring.
   - To change the exposure, touch the viewfinder then slide .
3. To take the photo, do one of the following:
   - Touch .
   - Touch & hold to take a rapid series of photos.
   - Touch for a timer.
   - To touch anywhere on the screen instead of using , touch **Settings** > **CAPTURE SETTINGS** and turn on **Tap anywhere to capture**.
4. To review your photos and videos, touch thumbnail at bottom right. Then:
   - To view all thumbnails, touch the screen, then touch to open the Gallery app.
   - To view photos later, open the Gallery app or other photo app you installed.

Take a selfie

1. On the viewfinder, touch to switch to the front camera.
2. If needed, adjust the beauty filter.
3. To take the photo, do one of the following:
   - Touch .
   - Touch for a timer.

Take a panoramic photo

1. On the viewfinder, touch **Panorama**.

2. Frame one side of the scene.
3. Touch , then slowly pan horizontally across the scene. Keep your motion smooth and use a steady speed.
4. When you reach the end of your scene, touch .

Take photo with adjustable focus (bokeh)

Keep the subject of your photo in focus and blur the surrounding scene as little or much as you like.

1. On the viewfinder, touch **Portrait**.
2. Be sure you're within 1.5 meters (5 feet) of your subject. It's best if nothing is in the way and the subject stands out.
3. Move the slider to increase or decrease blur around the subject.
4. Touch .

Share a photo you've just taken

1. Swipe the viewfinder screen to the left, and touch the photo to share.
2. Touch .
3. Select the way you want to share.

You can also:

- Share multiple photos at once.
- Copy photos to your computer.
- Display your photos on an HDTV.
- Print photos from your phone.

Fix an issue

If you’re having issues, try these troubleshooting steps.

Take screenshots

Take a screenshot

1. Do one of the following:
   - Touch & hold three fingers on the screen. (If this doesn't work, turn **Settings** > **System** > **Gestures** > **Three finger screenshot** on.)

   - Touch to see recent apps, then touch **Screenshot**.
   - Press & hold Power + Volume Down simultaneously until the screen is captured.
2. Do any of the following:
   - To edit the screenshot, touch .
   - To share it, touch .
   - To analyze it with Google Lens , touch .
   - To delete it, touch .
   - For more time to review it before taking an action, touch the thumbnail to open the screenshot.

Find screenshots later

Open the Gallery app and touch **Folders** > **Screenshots**.

Record videos

Record a video

1. Open the camera:
   - Touch .
   - Press the Power button twice quickly. (If this doesn't work, set up the gesture.)
   - On the lock screen, swipe left.

2. Touch **Video** to switch to video mode.
3. If needed, adjust settings:
   - To record a selfie video, touch .
   - To turn the light on, touch .
   - To use location tags, touch and turn **Save location** on .
4. To start, touch .
5. While recording, you can:
   - Take a photo during your video by touching .
   - Pause recording by touching .
6. To stop, touch .

Record a timelapse video

1. Attach a tripod or set up your phone so that it can't move while you record.
2. On the viewfinder, touch **Timelapse**.
3. Use the slider to select the speed multiplier. In general, use a faster speed for longer videos.
4. To start, touch .

   You'll see two counters, one that shows the duration of the recording and another that shows the duration the video will play when sped up.
5. To stop, touch .

Share a video you've just taken

1. Touch the video thumbnail (right of).
2. Touch .
3. Select the way you want to share.

You can also:

- Copy videos to your computer using a USB cable.
- Display your videos on an HDTV.

Fix an issue

If you're having issues, try these troubleshooting steps.

Record your screen

You can record a video of your screen while you're using it.

Record screen

1. To start recording, open quick settings and touch .
2. If needed, adjust sound and screen touch options.
   - To mute all sound, turn off .
   - To use sound, turn **Record audio** on , then touch **Record audio** and select the microphone (your narration only), device audio (device sound with no mic for narration), or both.
   - To record a dot on the screen where your finger touches it, turn **Show touches on screen** on .
3. Touch **Start** to start the countdown timer.

   While recording, you'll see in the status bar.
4. To stop recording, swipe down from the top of the screen and touch the red **Recording screen** notification.

View recordings

To view a recording immediately after you capture it, swipe down from the top of the screen and touch the notification.

To view any time, open the Gallery, Files, or other media viewing app, and look for the Screen record folder.

Adjust photography settings

Before you take a photo, you can adjust settings to get the best photo for your situation.

Use a timer

Tip: Use a tabletop tripod to stabilize the phone when taking timed shots.

1. If you're taking a selfie, touch .
2. Touch and choose the number of seconds.
3. Frame your shot, and when you're ready, touch to start the countdown.
4. Take your place in the shot (if you're taking a selfie, simply wait) and smile!

Use a flash

To set the flash mode (off, always on, or auto), touch on the viewfinder.

Use HDR in high-contrast lighting

Taking a photo of a bright scene that also includes dark shadows? Use HDR (High Dynamic Range) mode. The camera captures multiple exposure levels and combines them into a single photo for vibrant colors and more detail in both light and dark areas.

To set HDR mode (off, always on, or auto mode), touch HDR on the viewfinder.

HDR is best for:

- Landscapes with bright sky and shaded hills or foliage
- Outdoor portraits with lots of contrast
- Backlit scenes with dark shadows and streams of sunlight
- When both the camera and subject are stationary

Do **not** use HDR for:

- Action shots
- Low-light indoor photos
- When you want to use the flash or the front camera

When the camera detects a high contrast scene, it automatically goes into HDR mode, and HDR appears in the viewfinder. Consider whether HDR mode would improve the photo or not.

Use beauty filter

Your front (selfie) camera includes a beautification filter. Use it to:

- Soften and even skin tone
- Remove blemishes and shine
- Whiten teeth
- Highlight T-zone
- Slenderize face
- Enlarge and brighten eyes

To use the filter:

1. On the viewfinder, touch and turn it on .
2. Use the slider to adjust the intensity of the filter.
3. Smile and touch to take the picture.

Fix an issue

If you’re having issues, try these troubleshooting steps.

Adjust other camera settings

Store photos and videos on SD card

To set your camera to save new photos and videos on your SD card:

1. Be sure you inserted an SD card.
2. On the viewfinder, touch **Settings**.
3. Touch **Storage** > **Memory card**.

You can also move existing photos and videos from internal storage to the SD card.

Use location tags

When you take photos or videos, you can embed data about the location where you took them.

On the viewfinder, touch **Settings** and turn **Save location** on.

You need to turn on location-based services to use this feature.

Turn shutter sound on/off

On the viewfinder, touch **Settings** and turn **Shutter sound** on or off.

Delete photos and videos

From the Camera app

1. Touch the photo thumbnail (right of).
2. Touch .

From the Gallery app

1. From the list of thumbnail photos:
   - To select one item, touch & hold it.
   - To select multiple items, touch & hold the first one, then touch the others.
2. Touch .

Fix an issue

If you're having issues, try these troubleshooting steps.

Edit photos and videos

Edit photos

1. Open the photo in the **Camera** or **Gallery** apps.
2. Touch the photo, then touch .
3. Select an effects filter, rotate, or crop the image.
4. Do one of the following:
   - To undo changes, touch **Cancel**.
   - Touch **Save copy**.

Trim videos

1. Open the **Gallery** app.
2. Touch the thumbnail to open the video, then touch .
3. Use the sliders to specify the frames you want to trim.
4. Touch **Save copy**.

Find photos and videos

Photos/videos you took

To browse for photos or videos:

1. Open the **Gallery** app.
2. Touch **Photos** or **Folders**.
3. Touch a thumbnail to open the photo or video.

Photos/videos from text messages

To find photos you've saved from text messages:

1. Open the **Gallery** app.
2. Touch **Folders**.
3. Touch the name of your messaging app. (Swipe left if needed.)

Photos/videos from WhatsApp, Instagram, other apps

1. Open the **Gallery** app.
2. Touch **Folders**.
3. Touch the name of your messaging app. (Swipe left if needed.)

Missing photos/videos

If you're having trouble finding photos or videos, read Google's support information.

Storage location

Photos and videos you've taken are stored on your phone (internal storage) or on your SD card, depending on your setting.

For either internal storage or the SD card, look in these folders.

Folder	Type of photo/video
DCIM	Taken with Camera app
Pictures/PhotosEditor	Your edited photos. Also check DCIM for edited photos.
Pictures/Screenshots	Screenshots

Pictures/[app]	Saved from messages or photo sharing apps

Share photos and videos

You can wirelessly share one, multiple, or all items from any Gallery view, sending them as email or message attachments, uploading to the cloud, or using device-to-device connections like Bluetooth.

In addition to sharing wirelessly, you can transfer photos to your computer with a USB connection. You can also move photos from internal memory to SD card.

To share wirelessly:

1. Open the **Gallery** app.
2. Navigate to the thumbnail of the item you want to share.
3. Select the item to share:
   - To select one item, touch & hold its thumbnail.
   - To select multiple items, touch & hold the first thumbnail, then touch the others to select them.

   Tip: To clear all selections, touch ✕ at the top of the screen next to the number selected.
4. Touch and select the way you want to share.

About wireless sharing

What you can share

You can share your photos and videos, contacts, screenshots, and downloaded files.

When sharing photos and videos

When deciding how to share your photos or videos, consider these factors:

- Resolution (high versus low) of the photo or video; high resolution uses more data
- Number of photos to share (one photo or a few or an entire vacation album)
- Whether you want to share on the internet or from device-to-device
- Length of availability for sharing

Ways to share

Method	Description

Nearby Share	Good for: • Sharing securely with nearby people who have Android phones • Sharing a link, a contact, one or a few photos • Fast, immediate sharing Things to consider: • The other phone must be within 1 foot (30 cm). • No Wi-Fi or cellular data connection required. Learn more.
Message (MMS)	Good for: • Sharing one photo or a low-resolution video • Sharing with a friend or group • Sharing immediately, as an event is happening Things to consider: • You and your recipients must have cellular data plans to receive multimedia text messages. • Sending high resolution photos via text message uses more more data. • Photos and video remain available until the recipient deletes the message. • High quality videos are too large and cannot be shared in text messages. Learn how
Email	Good for: • Sharing one or a few photos • Sharing with a friend or group Things to consider: • Some email providers limit attachment sizes. For large files, upload the file to a cloud storage and email the link instead of the file. • Email attachments remain available for download until the recipient deletes the email. Learn how
Cloud	Good for: • Sharing high resolution photos, multiple photos, entire albums, and videos • Controlling sharing via links

	• Controlling how long you share something (You can easily delete it or turn off sharing privileges.) Things to consider: • Many cloud services offer free storage with a basic account. • Cloud storage services are fairly secure, but not completely free from security breaches, so upload wisely. • Upload over Wi-Fi to prevent cellular data charges. Learn how
Social app	Good for: • Sharing publicly, with large groups of friends, followers, and subscribers • Sharing one photo at a time, or many photos, albums, or videos • Controlling how long you share something (You can easily delete it or turn off sharing.) Things to consider: • Understand social network privacy and sharing policies before you post. • Review updates to social network privacy and sharing policies often. • Requires a Wi-Fi or cellular data connection.
Bluetooth	Good for: • Sharing from phone-to-phone or other connected device • Fast sharing Things to consider: • Your phone must be paired and connected with another device.

Upload photos and videos

You can back up your photos and videos to the cloud by installing the Google Photos app.

1. Open the **Gallery** app.
2. Touch ⋮ > **Settings** > **Google Photos**.
3. Install the app.
4. Follow onscreen instructions to back up and sync your photos.

Tip: Back up over Wi-Fi to prevent cellular data charges.

To learn more, read Google's help.

Listen to radio

Listen to FM stations

Your phone automatically tunes to radio stations with the best signal. Listening to the radio doesn't use your mobile data.

1. Plug headphones (any brand) into your phone. They serve as a radio antenna and allow you to scan for stations. Even when you listen through your phone's speaker, Bluetooth wireless speakers, or wireless headphones, you still need the wired headphones as your antenna.
2. Open the **FM Radio** app.
3. Do any of the following:
   - To view all stations and listen to any, use the tab.
   - To listen to your favorite stations, use the tab.
   - To seek stations throughout the radio dial, touch the tab, then touch or . Tune to specific frequencies by dragging the tuner to the appropriate number.
   - To change between headphones or loudspeaker, touch or .
   - If you're listening to the radio while using another app, use the mini player in notifications to seek stations or turn the radio off.
   - To turn the radio off, touch .

Tip: If you're having reception issues, try moving your phone as far from the headphones as possible to increase the size of the antenna. Or, try moving a short distance, towards a window if you are inside or away from buildings if you are outside.

Manage your favorites

Add a station to your favorites
On the or tabs, touch by the station.

Listen to your favorite stations
Use the tab.

Remove a favorite
On any tab, touch by the station.

Save and reload your favorites

If you change regions or manually rescan stations, your favorites will be cleared, too, so save them first. Then after you rescan, reload your favorites.

To save your favorites, on the tab, touch > **Save favorites**.

To reload your saved favorites, on the tab, touch > **Load favorites**.

Record current station

1. On the tab, touch to start recording.
2. To stop recording, touch .
3. If desired, edit the recording's name.
4. Touch **DONE**.

To listen to a recording, touch > **Recordings** > .

To delete or rename a recording, beside it, touch .

To delete all recordings, at the top of the screen, touch > **Delete all**.

To change storage location for recordings, touch > **Settings** > **Storage location**.

Set sleep timer for radio

1. Touch > **Sleep Timer**.
2. Select a duration of time to listen.
3. Touch .

   After the specified time, the radio automatically turns off.

Listen to music

Get music

Stream songs or download them to your phone so you can listen when you're on an airplane or don't have an internet connection.

Your phone can play MP3, FLAC, M4A, AAC, AAC+, MIDI, and WAV files.

To get music, do any of the following:

- Purchase it in a music app. Then stream it or download it using that app.
- Transfer it over USB or Bluetooth from your computer to your phone's Music folder.
- Upload it from your computer to the cloud and listen on any internet-connected device.

Transfer music files

About transferring music

You can transfer purchased music files stored on your devices between devices you own.

Music apps that share music files from cloud storage typically share links to access stored files instead of transferring music files between devices. To transfer music files, the music must be stored on the device.

Send files over Bluetooth

To send music files stored on your phone:

1. Pair your phone with the device receiving the music.
2. On your phone, open the **Files** app and touch **Browse** > **Audio**.
3. Touch & hold the file.
4. Touch and select **Bluetooth**.
5. Touch the name of the paired device.

   During file transfer, you'll see in the status bar. To check the status, see the notification.

Receive files over Bluetooth

1. Pair your phone with the device sending the music.
2. On the device sending the music, start the file transfer, following device's instructions.
3. When you receive the Bluetooth notification on your phone, swipe down and touch it, then touch **Accept**.

   During file transfer, you'll see in the status bar. To check the status, open the notification.

The files are saved in Music/Bluetooth, where music apps will find them. You're ready to listen!

Transfer music from your computer

To move your music from your computer to your phone, connect them with a USB cable and copy the files to your phone's Music folder.

Connect a MIDI device

To connect a MIDI device:

1. Make sure you have:
   - A USB cable that's capable of data transfer and isn't for charging only.
   - A USB OTG adapter cable, if needed.
2. Turn the phone and MIDI device on.
3. Connect them with the USB cable (and adapter if needed).
4. Unlock the phone.
5. Change the USB connection type to allow MIDI connection:
   a. Swipe down from the top of your home screen and touch the **Charging this device via USB** notification.
   b. Touch **MIDI**.

Connect to Wi-Fi networks

Turn on and connect

Turn Wi-Fi on

1. Open quick settings and touch **Internet**.
2. Turn **Wi-Fi** on .

Your phone automatically connects to nearby Wi-Fi networks you've connected to before.

When you're connected, you'll see in the status bar.

Search for available networks

1. Open quick settings and touch **Internet**.
2. Turn **Wi-Fi** on .

   You'll see a list of available networks. If a network needs a password, you'll see .
3. Do one of the following:
   - If the network is open (no), touch its name to connect.
   - To type a password from the network owner, touch the network to connect to, then enter the password. For your home network, get the password from the label on the Wi-Fi router. For a public network, get the password from the business or organization.
   - To connect using a QR code, touch **See all**, swipe to **Add network**, then touch and scan the code.
   - If the network is hidden, you need to set it up before it will appear in the list of available networks.

Change, share, remove networks

Change

1. Open quick settings and touch **Internet**.
2. In the list of nearby networks:
   - To connect to a different network, touch its name.
   - To change settings for the currently connected network, touch > .
   - To change settings for a saved, disconnected network, touch & hold its name, then touch **Modify**.

Share

You can share connection information with a friend so they can connect to the same network.

1. Open quick settings and touch **Internet**.
2. Touch the network you're connected to, then touch .
3. Show the person the code to scan or the Wi-Fi password to type.

Remove

If you don't want to automatically connect to a saved Wi-Fi network, you can forget that network.

1. Open quick settings and touch **Internet**.
2. If the network appears in your list of nearby networks, touch its name, then touch **Forget**.
3. To review all of your saved networks, touch **Saved networks**. For each network you want to remove, touch its name, then touch **Forget**.

Turn Wi-Fi off

To extend the life of your battery between charges, turn off Wi-Fi when you're not in a location with access to Wi-Fi.

1. Open quick settings and touch **Internet**.
2. Turn **Wi-Fi** off .

Advanced: Disable Wi-Fi scanning

1. Go to **Settings** > **Location**.
2. Touch **Location services**.
3. Touch **Wi-Fi scanning** and turn it off

If you turn this off, apps that use your location won't work as well.

Advanced: Connect to hidden networks

1. Open quick settings and touch **Internet**.
2. Touch **See all**, swipe down, and touch **Add network**.
3. Enter the SSID (network name), security type, check **Show password** and enter the password.
4. Touch **Advanced options**, and change **Hidden network** to **Yes**.
5. Touch **Save**.

   The hidden network is now visible in the list of available networks, and if you weren’t connected to Wi-Fi previously, you’re now connected.
6. If you were connected to Wi-Fi when you added the hidden network, in the list of available networks, touch the name of the saved network, then touch **Connect**.

Connect with Wi-Fi Direct

If you have a device, like a printer or TV, that supports Wi-Fi Direct, you can connect your phone without a wireless router or cable.

When you turn on your phone’s Wi-Fi, Wi-Fi Direct is automatically enabled.

To connect to a Wi-Fi Direct device:

1. On the device you want to connect, set up Wi-Fi Direct. For instructions, see that product's user guide.
2. On your phone, go to **Settings** > **Network & internet** > **Internet** > **Network preferences**.

3. Touch **Wi-Fi Direct**.

   You'll see a list of Wi-Fi Direct devices that are within range and compatible.

4. Touch the device's name to connect.

Use Airplane mode

Airplane mode turns off all wireless connections, preventing your phone from transmitting signals that could interfere with airplane communications.

Turn it on

Open quick settings and touch to turn airplane mode on. This disables all wireless connections (Wi-Fi, voice and data for calls and text messages, Bluetooth). If permitted by your airline, you can then turn Wi-Fi and/or Bluetooth back on during the flight. Other wireless connections remain off.

Turn it off

Open quick settings and touch .

Control data usage

Turn mobile data off/on

Open quick settings, touch **Internet**. Then, by your mobile network's name, turn your connection on or off .

When you turn off data usage over your cellular network, you can still use data by connecting to a Wi-Fi network.

Cellular data must be ON if you want to:

- Receive or send multi-media messages
- Share your phone's internet connection with other devices

Set data warning and limit

Sometimes it's easy to exceed your data plan limit without realizing it. To avoid surprises, set a usage warning that notifies you when you're close to your limit, and set a usage limit that turns off cellular data when the limit is reached.

1. Go to **Settings** > **Network & internet** > **Mobile network**.

   Or, in quick settings, touch & hold **Internet**.

2. If you're using two SIMs, touch the SIM name.
3. Touch **Data warning & limit**.
4. To set a warning, turn **Set data warning** on , then touch **Data warning** and enter the amount of data.
5. To set a usage limit, turn **Set data limit** on , then touch **Data limit** and enter the amount of data.

Restrict background data

About background data

Even when you’re not actively using them, most apps use data in the background to sync information and deliver notifications.

To conserve data when you’re running low, you can use Data Saver to turn off background data for all apps. Or, to restrict background data used by an app indefinitely, you can turn off background data specifically for that app.

Notifications only when you open the app

When you turn off background data for an app, it won't sync until you open it, so you will receive NO notifications until you open the app and it syncs.

Restrict for all apps when you’re low

1. Go to **Settings** > **Network & internet** > **Data Saver**.
2. Turn **Use Data Saver** on .

   You'll see in your status bar and all apps are prevented from using background data.
3. To allow certain apps to continue using background data, touch **Unrestricted data**, then next to the app name, slide the switch on .

Restrict for specific apps indefinitely

1. Go to **Settings** > **Network & internet** > **Mobile network**.
2. If you're using two SIMs, touch the SIM name.
3. Touch **App data usage**.
4. Touch an app, then turn **Background data** off .

Dual SIMs

If your phone has two SIMs, cellular data is active on only one SIM at a time. You can control which SIM is used.

Share your internet connection

About hotspots and tethering

Want to use the internet on a laptop computer or tablet but don't have a connection? You can share your phone's cellular data connection with multiple devices by turning your phone into a Wi-Fi hotspot. You can also share your internet connection with a single device using USB tethering or Bluetooth tethering.

Note: Your cellular plan must support data sharing. If you don’t know, contact your carrier.

Hotspot: Set up

1. Check that cellular data is on. If cellular data is off, your phone doesn't have an internet connection to share.

2. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
3. Touch **Wi-Fi hotspot** and do any:
   - To make it easier to identify your hotspot when connecting to it, change the name for your hotspot.
   - To prevent others from seeing your phone's network name, turn **Hidden SSID** on .
   - To see the current password, touch **Hotspot password**.
   - If the hotspot signal is experiencing interference, change the broadcast channel/band to 5GHz. If the hotspot signal seems weak, change it to 2GHz. (This feature is not available in all countries.)
   - To save power by having your hotspot turn off if nobody is using it, make sure **Turn off hotspot automatically** is on .

Hotspot: Connect devices

1. Check that cellular data is on. If cellular data is off, your phone doesn't have an internet connection to share.
2. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
3. Touch **Wi-Fi hotspot**.
4. Turn **Use Wi-Fi hotspot** on , then plug in your phone to charge. Using the hotspot really drains the battery!

   When your hotspot is active, you'll see in the status bar.
5. Set up the connection.

To connect	Do this
A phone	a. On your phone, next to the hotspot's name, touch and unlock if prompted. b. Use the other phone's camera to scan the QR code that provides the password.
Other device	a. Open the device's Wi-Fi settings. b. Select your phone's hotspot. c. Enter the hotspot password. Learn how to find the hotspot's password.

Hotspot: Manage connections

To see the number of devices connected to your hotspot:

- In quick settings, look below .
- Or, go to **Settings** > **Network & internet** > **Hotspot & tethering** and look under **Wi-Fi hotspot**.

To limit the number of allowed connections:

1. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
2. Touch **Wi-Fi hotspot** > **Advanced** > **Max Connections**.

3. Select a number.

Control who can connect

You can limit who can connect to your hotspot with its password or QR code:

To switch modes:

1. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
2. Touch **Wi-Fi hotspot** > **Advanced** and turn **White List Mode** on or off.

To add a device to your whitelist:

1. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
2. Touch **Wi-Fi hotspot**.
3. Add devices:
   - If the device is already connected, touch it and touch **ADD WHITELIST**.
   - Otherwise, touch **+ Manually Add WhiteList Device**, type a name and the device's MAC address, then touch **ADD WHITELIST**.

   The added device will appear in your list.

To remove a device from the list, touch it, then touch **Remove**.

Block a connected device

1. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
2. Touch **Wi-Fi hotspot**.
3. Touch the connected device, then touch **BLOCK**.

   The device is disconnected from the hotspot and will not be able to reconnect.

Disconnect everyone

To disconnect all devices and prevent them from reconnecting:

1. Turn the hotspot off.
2. Change the password.
3. Turn the hotspot back on to continue using it.

Hotspot: View or change password

1. Go to **Settings** > **Network & internet** > **Hotspot & tethering**.
2. Touch **Wi-Fi hotspot**.
3. Touch **Hotspot password** to see the current password.
4. To change the password, type over the current password.

Note: Although you can turn off passwords for your hotspot, keeping a password prevents unauthorized usage of your cellular data.

USB tethering

To connect a device to the internet using your phone's cellular data and a USB cable:

1. Check that cellular data is on. If cellular data is off, your phone doesn't have an internet connection to share.
2. Connect your phone to your computer with a USB cable.
3. On your phone, go to **Settings** .
4. Touch **Network & internet** > **Hotspot & tethering**.
5. Turn on **USB tethering** to start the connection.

   You'll see in your notifications.

To stop the connection, touch the notification and turn off **USB tethering**, then disconnect your phone and computer.

Bluetooth tethering

To connect a device to the internet using your phone's cellular data and a Bluetooth connection:

1. Check that cellular data is on. If cellular data is off, your phone doesn't have an internet connection to share.
2. Turn on Bluetooth on your phone and pair with the other device.
3. Set up the other device to get its network connection via Bluetooth.
4. On your phone, go to **Settings** .
5. Touch **Network & internet** > **Hotspot & tethering**.
6. Turn on **Bluetooth tethering** to start the connection.

   You'll see in your notifications.

To stop the connection, touch the notification and turn off **Bluetooth tethering**.

Connect to VPNs

A virtual private network (VPN) lets you access files on a secure network like an office network with a firewall. Contact your network administrator for VPN settings and any additional apps or requirements.

To set up a VPN connection:

1. Go to **Settings** > **Network & internet**.
2. Touch **VPN**. If prompted, set a screen lock PIN or password.
3. Touch .
4. Choose the type of VPN and enter settings from the network administrator.
5. To always remain connected to the VPN, check **Always-on VPN**.
6. Touch **Save**.

The network is stored in the VPN list so you can select it when you need to connect.

Add a Private DNS service

Private DNS protects you when you browse the internet and use apps on your phone. It:

- Encrypts your data over a secure channel
- Prevents you from being redirected to fraudulent websites that appear legitimate
- Prevents you from receiving fraudulent communications from sources that appear legitimate (phishing)
- Prevents others from stealing your information as it’s being sent or received (snooping)

Your phone is set to **Private DNS** > **Automatic** by default. So, as long as your mobile or internet service providers offer encrypted DNS, you're protected. Check with your mobile and internet providers.

Private DNS services

The only time you need to change this setting is if you have a free or paid DNS service to use, instead of relying on your mobile or internet providers. To add the service to your phone:

1. Go to **Settings** > **Network & internet** > **Private DNS**.
2. Select **Private DNS provider hostname**.
3. Touch **Enter hostname of DNS provider**.
4. Enter the URL for your DNS provider and touch **Save**.

If you no longer want to use the private DNS service:

1. Go to **Settings** > **Network & internet** > **Private DNS**.
2. Select **Automatic**.

   We don't recommend turning Private DNS off.

Connect with Bluetooth

Turn Bluetooth on/off

Bluetooth uses more of your battery, so turn it off when not in use.

1. Open quick settings.
2. Touch to switch it on/off.

Pair with Bluetooth device

To connect with a new Bluetooth accessory or other device, you need to pair with it. You only need to do this once for each device.

1. Set the device you want to pair (accessory, computer, other phone, etc.) to Bluetooth discovery mode so that your phone can find it. See the device manufacturer's instructions.
2. On your phone, go to **Settings** > **Connected devices**.
3. Touch .

   As the phone searches for available devices, you'll see .
4. Touch an available device to connect.
5. Do any of the following:
   - If a pairing code appears on your phone and Bluetooth device, make sure the codes match. (If they don't, touch **Cancel**, verify the name of the device you want to pair with, and try again.)
   - If your device shows a passkey (like 0000 or 1234), enter it on your phone. If you don't see a place to enter it, swipe down from the top of your screen and touch the Bluetooth notification.
   - If your device doesn't show a passkey and you must enter one for the device to pair, see the device manufacturers' instructions.
6. Touch **Pair** on your phone. Check the other device for a pairing prompt as well; if it has one, you'll need to confirm on both devices or pairing will fail.
7. Set sharing options if you'll want to share contacts, phone audio, media audio, or internet access.

Tip: If you use a screen lock, you can define a paired Bluetooth device as a trusted device, keeping your phone unlocked while connected to it. When you disconnect or move out of range, your phone locks again. Go to **Settings** > **Security** > **Smart Lock** > **Trusted devices**.

Can't pair? Troubleshoot the issue.

Use paired device

Tip: Bluetooth connections can really drain your battery. Save power by turning Bluetooth off when you're not connected to a device.

After pairing with a device, you'll need to set sharing options and then you can use Bluetooth to:

- Make or receive calls with a headset

- Make or receive calls and play music over your car's audio system
- Transfer music
- Share photos
- Share contacts
- Share your phone's internet connection with your computer

To set sharing options:

1. Go to **Settings** > **Connected devices**.
2. Touch by the device's name.
3. Turn sharing options on or off.
4. On the paired device or in the device’s app, look for Bluetooth settings to review and adjust. For more information, see the paired device manufacturer’s instructions.

Reconnect with Bluetooth device

1. Open quick settings and turn on.
2. Turn on the Bluetooth device.

Turn off Bluetooth scanning

When Bluetooth is off, your phone can still scan and automatically connect to a previously paired device. To prevent this, turn off Bluetooth scanning.

To turn off scanning:

1. Go to **Settings** > **Location**.
2. Touch **Location services**.
3. Turn **Bluetooth scanning** off .

If you turn this off, apps that use your location won't work as well.

Change phone's name

Your phone name identifies your phone in a Bluetooth network. You can change the name.

1. Go to **Settings** > **Connected devices**.
2. Touch > **Device name**.

Share files and links with nearby Android phones

Share content easily and securely. You can share things like photos or videos, contacts, documents, and links. Send them to another Android phone near you without using an internet connection.

Turn sharing on/off

To turn it on:

1. On your phone, make sure Bluetooth and Location are turned on.
2. Open quick settings and touch .

   Or, go to **Settings** > **Connected devices** > **Connection preferences** > **Nearby Share**.
3. Touch **Turn on** or turn it on .

To turn it off, open quick settings, touch and turn it off .

Tip: You can change your phone's name to something less identifiable before sharing or receiving. Go to **Settings** > **Connected devices** > **Connection preferences** > **Nearby Share** > **Device name** and edit the name.

Share content with someone

1. Open the content to share.
2. Touch or touch > **Share**, then select **Nearby Share**.

   Your phone will look for nearby devices.
3. Hold your phone and the other phone close to each other.
4. When you see the other phone in your list of nearby devices, touch its name to send the item.

   The other person can accept or reject the transfer.

Get content from someone

1. When someone shares content with you, you'll get a notification:
   - If needed, touch the notification to make your phone visible.
   - If you're prompted to turn on Nearby Share, Bluetooth, or Location, touch **Turn on**.
2. To get the content, touch **Accept**.

Choose who can see you for sharing

No one can share with you when your screen is locked.

To adjust who can share with you when your screen is unlocked:

1. Open quick settings and touch .

   Or, go to **Settings** > **Connected devices** > **Connection preferences** > **Nearby Share**.
2. Touch **Device visibility** and choose who can see your phone for sharing:
   - **Everyone**: Your phone is visible to your contacts who are nearby while your screen is on and unlocked.
   - **Contacts**: Your phone is visible to nearby contacts you choose while your screen is on and unlocked.
   - **Your devices**: Your phone is only visible when Nearby Share is open.

   If a contact isn't available, you'll need to add an email address associated with their Google account to their contact info.

Fix an issue

If you can't share content with someone, try these steps:

1. On both phones, check that Bluetooth is on.
2. On both phones, check that Location is on.
3. Bring the devices close together, within 1 foot (30 cm) of each other.
4. Turn airplane mode on and then off.
5. Turn your phone off and then on again.
6. Wait until no one else is sharing content with the other phone.

Transfer files between phone and computer (USB)

About USB transfers

You can transfer music, photos, and other files between your phone's storage and computer (in either direction). Use a USB cable that's capable of data transfer and isn't for charging only.

When you connect the phone and computer with the USB cable, the phone’s USB connection type is set to charging mode, which charges your battery but prevents your computer from seeing files on your phone. Before transferring files, change the USB connection type to allow transfer of:

- Any type of file
- Only photos and videos

Connect phone to transfer files

1. With the phone and computer turned on, connect the phone and computer with a USB cable.
2. Unlock the phone.
3. Change the USB connection type to allow file transfers:
   a. Swipe down from the top of your home screen and touch the **Charging this device via USB** notification.
   b. To transfer any type of file, touch **File transfer**.

      Or, to transfer only photos and videos, touch **PTP**.

Transfer files

On a Windows computer:

1. Ensure the phone is properly connected to the computer using the steps above.

   If you don't unlock the phone and change the USB connection to allow file transfers, you won't see any files on your phone.
2. On your computer, open File Explorer, click the name of your phone, and navigate to its internal storage or SD card.

3. If you selected **PTP** when you connected the phone, in File Explorer choose whether to import pictures and videos automatically or manually.
4. Open a second File Explorer window to see your computer folders.
5. Navigate to the folders or files to transfer, then drag and drop them to and from the open phone storage and computer folders.

On a Mac:

1. Ensure the phone is properly connected to the computer using the steps above.

   If you don't unlock the phone and change the USB connection to allow file transfers, you won't see any files on your phone.
2. On your computer, download the Android File Transfer application from www.android.com/filetransfer and follow the onscreen instructions.

Location of files

Files are stored in these folders on your phone:

- **DCIM**: (Digital Camera Images) Photos and videos taken with the Camera app
- **Pictures**: Photos you edited and photos from apps other than Camera
- **Download**: Files downloaded from the internet
- **Music**: Files for apps that play music
- **Ringtones**: Sound files for ringtones
- **Notifications**: Sound files for notifications
- **Alarms**: Sound files for alarms

Fix an issue

If you're having issues, try these troubleshooting steps.

Cast screen or media to TV

Mirror with Chromecast

To mirror your screen on a TV, showing all apps and screens you use on your phone, you must:

- Use a TV with Chromecast built-in.
- Or, plug a Chromecast into your TV's HDMI port. (Learn how.)

To start casting:

1. Make sure your phone and Chromecast or TV with Chromecast are connected to the same Wi-Fi network.
2. Go to **Settings** > **Connected devices** > **Connection preferences** > **Cast**.

   Or, from quick settings, touch .
3. Touch the name of the Chromecast or TV to connect.

To stop:

- On the casting notification, touch > **Disconnect**.
- Or, from quick settings, touch > **Disconnect**.

Cast an app

You can cast an app if you:

- Have a smart TV that supports mobile apps for viewing or playing media from your phone. See your TV user guide for instructions to connect your phone.
- Have Chromecast or a TV with Chromecast built-in.

Miracast is not supported.

To cast an app:

1. Make sure your phone and smart TV or Chromecast are connected to the same Wi-Fi network.
2. In a cast-compatible app (like YouTube), touch .

   If you don't see or don't see your TV listed in the casting options, try these troubleshooting steps.

While casting:

- You'll see in the status bar.
- You can still make and receive calls and use your phone's other features.

To stop casting:

- In the app that's casting, touch and touch the option to disconnect.
- From the notification, touch .

Cast personal media with Wi-Fi Direct

If your TV supports Wi-Fi Direct, set up a connection between your phone and TV so that you can view or play media from your phone.

For information about using Wi-Fi Direct after you've connected, see the user guide that came with your TV.

Fix an issue

After each step, see if your issue is fixed.

Check the basics

1. If you're using a VPN, turn off the VPN and try again.
2. Make sure your phone and Chromecast or smart TV are connected to the same Wi-Fi network.
3. Move your phone to within 15 feet of your Chromecast or smart TV.
4. If you're using Chromecast or a TV with Chromecast built-in, check for updates to the Home app.

Phone can't find smart TV

First, check the basics. Then:

1. On the TV, open the app and start a video. Then on your phone, open the app and try casting to the TV again.
2. Link the app on your phone to the app on the TV:
   a. On your phone, open the app, open its settings, and look for options to watch on TV. (For example, **YouTube** > > **Settings** > **Watch on TV** > **Link with TV code**.)
   b. Follow the app's onscreen instructions to complete setup.
3. Reboot your Wi-Fi router.
4. Check your TV for firmware and app updates. See the TV manufacturer's support website for information.
5. Check your TV manufacturer's support website to make sure the app is still supported on your TV model.

Check for app help

If you're having issues casting with one of these apps, check their help center for troubleshooting information:

- Netflix
- Amazon Prime Video
- YouTube
- Google TV

Print from your phone

Set up printing

To connect your printer and phone:

1. Before you begin:
   - If your printer is connected to a Wi-Fi network, be sure the phone and your printer are connected to the same network.
   - If your printer supports Wi-Fi Direct, set up a direct connection between the phone and printer.
2. Go to **Settings** > **Connected devices** > **Connection preferences** > **Printing**.
3. Touch **Default Print Service** to automatically find your printer.

   Once your printer is found, it is ready to print.

If your printer isn't found in Default Print Service:

1. Touch **Add service**.
2. In Play Store, search for "[printer brand] print service" and install the app for the printer's service plugin.
3. Once installed, return to **Settings** > **Connected devices** > **Connection preferences** > **Printing** and touch the print service plugin name to automatically find your printer.
4. If your printer isn't found automatically, touch > **Add printer** > .
5. Enter the printer's name and IP address (found in your printer settings on connected computer).

Print

1. Open the item to print, such as:
   - A photo in Gallery
   - An email
   - A document in Drive
   - A web page in Chrome.
2. Touch or > **Print**. (If you're using Chrome, > **Share** > **Print**.)
3. Select printer options if needed.
4. Touch .

Adjust screen brightness

To set your screen's brightness, open quick settings and slide .

Your phone automatically adjusts your screen to the light around you, with Adaptive brightness. When the feature is on, you can still fine tune the brightness in quick settings. To turn this feature off:

1. Go to **Settings** > **Display**.
2. Turn **Adaptive brightness** off.

Tip: If the lowest setting on the slider is still too bright, you can make the screen extra dim.

Use Dark theme

Give your eyes and battery a break by changing to a dark background.

When Dark theme is on, the dark background applies to your settings and app screens. Colors don't change in media, such as videos.

When it's off, if you run low on battery, Battery Saver switches temporarily to the dark background until the phone has charged.

Turn it on or off

1. Go to **Settings** > **Display**.
2. Turn **Dark theme** on or off .

Tip: To add Dark theme to quick settings, open quick settings, touch , then drag the tile where you want it.

Set a schedule

1. Go to **Settings** > **Display** > **Dark theme**.
2. Touch **Schedule**, then select one:
   - To start and stop at specified times, touch **Turns on at custom time** and enter times.
   - To use from dusk to dawn, touch **Turns on from sunset to sunrise**.

Adjust colors at night

If you selected a color mode or palette, it will resume outside of night hours.

Automatically change screen to amber

Your phone can automatically filter out blue light and adjust screen colors to warmer tones at night, making it easier to view and read in dim light. You might even fall asleep more easily.

1. Go to **Settings** > **Display** > **Night Light**.

2. Touch **Schedule**, then:
   - To start and stop at specified times, touch **Turns on at custom time** and enter times.
   - To filter from dusk to dawn, touch **Turns on from sunset to sunrise**.

To adjust filter intensity, open quick settings, touch & hold , then use the slider to change the intensity of the amber filter.

Turn it off

To temporarily switch back to regular colors from amber, open quick settings and turn off Night Light.

To stop automatically changing to amber, select **Settings** > **Display** > **Night Light** > **Schedule** > **None**.

Choose color mode

You can change the intensity of color on your screen for a realistic or enhanced look.

1. Go to **Settings** > **Display**.
2. Touch **Color palette**.
3. Choose one:
   - To see the most accurate colors, touch **Natural**.
   - To see the most vivid colors, touch **Saturated**.

Tips:

- If colors don't appear as you expect, troubleshoot the issue.
- If you're color blind, use color correction instead.

Change accent color

Select a color scheme for buttons, sliders, and messages.

1. Go to **Settings** > **Display** > **Color palette**.
2. Review colors:
   - Swipe color tiles to see more options.
   - To add a new color tile, touch , then touch a color on the bar > **Add color**.
3. Touch a color tile to select it.
4. Touch .

Change screen timeout

Change when your screen turns off

1. Go to **Settings** > **Display**.
2. Touch **Screen timeout** and select the time of inactivity before your phone sleeps.

> **Tip:** Set a shorter time to extend battery life.

Stop automatic rotation

Prevent screen from rotating

Open quick settings and turn Auto-rotate off.

In this mode, you can manually rotate the current app. Turn your phone the direction you want, then touch in the corner.

Allow screen to rotate

To allow rotation for all apps, open quick settings and turn Auto-rotate on.

You can also adjust this in **Settings** > **Display** > **Auto-rotate screen**

Change text and icon size

You can make the text or other items on your screen smaller or larger for your comfort and convenience. You can also make text appear bolder and increase contrast to see it better.

1. Go to **Settings** > **Display** > **Display size and text**.
2. Do any of the following:
   - To adjust only the size of text on the screen, drag **Font size** to the size you want.
   - To adjust the size of icons along with their labels, drag **Display size** to the size you want.
   - To make the text darker and heavier, turn **Bold text** on .
   - To make text stand out better against its background, turn **High contrast text** on . When it's on, a thin black line is added around white text, or a thin white line is added around black text.

> **Tip:** Swipe the **Preview** window to see how the changes affect your icons and text.

To adjust other font and display options, touch & hold a blank space on your home screen, then touch **Personalize**.

If you need more help seeing the screen, turn on accessibility features, like magnification to zoom in and out or a screen reader to hear audio descriptions of what you touch on the screen.

Set lock screen preferences

Limit lock screen notifications

If you've set a pattern, PIN or password, you can control which notifications show on your lock screen.

1. Go to **Settings** > **Display**.
2. Touch **Lock screen** > **Privacy**.
3. Select whether or not to show notifications. If you show notifications but hide sensitive content, then you'll get notifications for an incoming email or chat, but they won't include message details.

Add message to lock screen

To add your name or a short message to your lock screen for anyone who finds your phone:

1. Go to **Settings** > **Display** > **Lock screen**.
2. Touch **Add text on lock screen**.
3. Type the text to display and touch **Save**.

Tip: Don't put your mobile number as contact info on your lock screen unless you can access your voicemail from another device.

Quickly tighten lock screen security

Unlocking with the fingerprint sensor and setting up automatic unlocking make it easier to keep your phone secure and minimize when you need to enter your PIN, pattern, or password. But sometimes you need to trade convenience for more security. You can temporarily tighten locks and prevent lock screen notifications.

1. Swipe down twice from the top of the screen, then touch > **Power off**.

   Or, press & hold the **Power button**, then touch **Power off**.
2. Touch **Lockdown**.

   Your fingerprint sensor and automatic unlock settings are disabled and notifications won’t be displayed on your lock screen.
3. To exit Lockdown, unlock your phone with your PIN, pattern, or password.

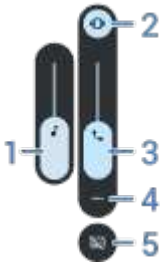
Adjust volumes

Use Volume buttons

In-call audio. When you're on a call, the Volume buttons control the volume of the other person.

Media. When you're not on a call, the Volume buttons control media volume during playback or before you listen.

Phone ringtone, notification sounds, and alarms. To adjust these volumes, press a Volume button and then use this shortcut on your home screen:



1. Slide to adjust media volume.
2. Touch to choose level for ringtone and notification sounds: on , silent , and vibration only .
3. Slide to adjust call volume.
4. Touch to see all volume controls (call, ring/notification, alarm, media).

Silence with Power & Volume buttons

To silence a ringing phone, press either the **Power** button or the **Volume down** button.

Tip: Use Do Not Disturb to silence all calls, messages, events, and reminders. Turn it on from quick settings, or schedule it to turn on automatically during certain times or during calendar events.

Set ringtones

Change default call ringtone

1. Go to **Settings** > **Sound & vibration**.
2. Do one of the following:
   - If your phone has one SIM card, touch **Phone ringtone**.
   - If your phone has dual SIMs, touch the SIM.

3. Do one of the following:
   - Select a ringtone from the list.
   - To use a song as the ringtone, touch **Add ringtone** at the bottom of the list. Then touch ☰ > **Audio** and select the song stored on your phone.
   - For silence, touch **None** at the top of the list.

Vibrate phone for calls

You can set the phone to vibrate when the phone rings, or set it to vibrate first, then ring gradually.

To extend battery life, turn vibrate off.

1. Go to **Settings** > **Sound & vibration**.
2. Touch **Vibration & haptics** and adjust settings:
   - To turn off all vibration (calls, notifications, keyboard interactions), turn **Use vibration & haptics** off .
   - To turn off just the vibration for incoming calls, keep **Use vibration & haptics** on and turn **Ring vibration** off .

Set call ringtone for a contact

You can choose a unique ringtone for calls from specific people so you'll know instantly who's calling.

1. Open the **Contacts** app.
2. Touch the contact's name.
3. Touch > **Set ringtone**.
4. Do one of the following:
   - Select a ringtone from the list.
   - To use a song as the ringtone, touch **Add ringtone** at the bottom of the list. Then touch ☰ to browse and select the song stored on your phone. Touch to show internal storage.
   - For silence, touch **None** at the top of the list.

Set ringtone for app notifications

You can set a default sound for notifications from apps including messaging and email. You can also set a unique ringtone for notifications from specific apps. Learn how.

Tip: To change your alarm sound, open the Clock app and touch . Then touch .

Get more ringtones

Although your phone comes with lots of ringtones, you can get more:

- Search for “ringtones” in Play Store and install an app that provide ringtones.

- Search for “ringtone maker” in Play Store and install an app that lets you create custom ringtones. Open the app and use it to select entire songs or portions of songs.
- If you have songs that are .mp3 files stored on your computer, connect your phone and computer with a USB cable, then copy the song to your phone.

Fix an issue

If you're not hearing your ringtones:

- Look for in your status bar, which means you're in Do Not Disturb mode. Open quick settings and turn Do Not Disturb off.
- Check that your ringtone volume is set to .

Enhance sound

About Dolby Sound Apps

When you're listening through your phone's speaker, Dynamic mode automatically detects what you’re listening to and makes adjustments to enhance the sound.

When you connect headphones or other listening devices, you can also select different sound profiles based on the type of media playing.

Set sound profile for headphones or connected device

1. Connect your headphones or other audio device.
2. Go to **Settings** > **Sound & vibration** > **Dolby Sound Apps**.
3. Make sure it's on .
4. Select an effect:
   - **Dynamic**: Identify content and automatically adjust to deliver the best sound.
   - **Movie**: Get authentic surround sound and clearer dialogue for movies and TV shows.
   - **Music**: Get rich audio that delivers every note and beat with power you can feel.
   - **Voice**: Get clear, consistent voice quality so you can hear every word.

Turn Dolby Sound Apps off

Dolby Sound Apps is always on and in **Dynamic** mode when you’re using your phone’s speaker.

To turn it off entirely when you're using headphones or other connected devices:

1. Connect your headphones or other audio device.
2. Go to **Settings** > **Sound & vibration** > **Dolby Sound Apps**.
3. Turn it off .

Silence calls & notifications

When you're busy, use Do Not Disturb to mute ringtones for incoming calls, stop vibration, and block notifications.

Quickly turn Do Not Disturb on or off

Turn it on

1. Open quick settings and touch .

   You'll see in the status bar when Do Not Disturb is on.

2. To change how long it stays on, in quick settings, touch & hold , touch **Duration for Quick Settings**, and then choose one:
   - To keep it on indefinitely, touch **Until you turn off**.
   - To select a duration, touch **For 1 hour**, then touch + or - to adjust the time.
   - To choose each time you turn Do Not Disturb on, touch **Ask every time**.

Turn it off

Open quick settings and touch .

If it's turning itself on again, but you don't want it to:

- Make sure you're not silencing on a schedule or during calendar events.
- If you're using Bedtime mode , touch **Settings** > **Digital Wellbeing & parental controls** > **Bedtime mode** > **Customize** and turn **Do Not Disturb** off .

Choose what can interrupt

You can choose which interruptions to allow when Do Not Disturb is on.

Choose interruptions by People

1. Go to **Settings** > **Sound & vibration** > **Do Not Disturb**.

   Or, in quick settings, touch & hold .

2. Touch **People**.
3. Choose what and who to allow.
   - **Calls**: Allow calls from starred contacts, other contacts, all callers, or none. You can also allow calls if the same person calls twice in 15 minutes; turn **Allow repeat callers** on .
   - **Messages**: Allow messages from starred contacts, other contacts, anyone, or none.

Choose interruptions by Apps

1. Go to **Settings** > **Sound & vibration** > **Do Not Disturb**.

   Or, in quick settings, touch & hold .

2. Touch **Apps**.

3. Touch +.
4. Touch the app to allow, and set notifications to allow.

   You'll see selected apps under APPS THAT CAN INTERRUPT. To change which notifications can interrupt, touch the app in the list.

Allow alarms and other interruptions

Alarms and media sounds are allowed by default, but you can turn them off. You can also allow touch sounds, reminders, and calendar events to send notifications.

1. Go to **Settings** > **Sound & vibration** > **Do Not Disturb**.

   Or, in quick settings, touch & hold .
2. Touch **Alarms & other interruptions**.
3. Turn interruptions on or off.

Silence on schedule

You can create a schedule for when your phone should automatically switch into and out of Do Not Disturb mode.

1. Open quick settings, then touch & hold .
2. Touch **Schedules**.
3. Use rules to set the schedule:
   - To use an existing rule, touch its name, like **Sleeping**. To adjust times or settings, touch .
   - To create a new rule, touch **Add more**. Touch **Time**, then enter a name and touch **Add**. Specify its days, start and end times, and level of silence.

To stop your phone from automatically silencing:

1. Go to **Settings** > **Sound & vibration**.
2. Touch **Do Not Disturb** > **Schedules**.
3. Do any of the following:
   - To use the schedule later, uncheck it to turn it off.
   - To delete a schedule, touch > .
   - To delete multiple schedules, touch > **Delete schedules**.

Silence during calendar events

Your phone can automatically switch into and out of Do Not Disturb mode for all scheduled events in calendars that you specify.

1. Open quick settings, then touch & hold .
2. Touch **Schedules**.

3. Do one of the following:
   - To use an existing one, turn it on.
   - To create a new one, touch **Add more**. Touch **Event**, then enter a name and touch **Add**.
4. Adjust options to select the calendar to use and your reply status.

To stop your phone from automatically silencing:

1. Go to **Settings** > **Sound & vibration**.
2. Touch **Do Not Disturb** > **Schedules**.
3. Do any of the following:
   - To use the schedule later, uncheck it to turn it off.
   - To delete a schedule, touch > .
   - To delete multiple schedules, touch > **Delete schedules**.

Stop phone from speaking

Silence replies to voice commands

Some voice commands (like “What's up?” and “What is the current weather?”) cause Google Assistant to speak in response.

To quickly silence a voice command response, touch .

Turn off screen reader

If your phone describes everything you touch on screen, speaking your notifications, and reading messages aloud, you might have turned on a screen reader. This accessibility feature helps people with visual impairments.

To turn it off:

1. Press & hold both Volume Up and Down buttons for three seconds. If TalkBack was reading the screen, this pauses readout so you can update settings more easily.
2. Go to **Settings** > **Accessibility**.
3. Turn off all screen readers, such as TalkBack or Select to Speak.

Silence “Hello Moto” during power up

If you don’t want your phone to say “Hello Moto” when it powers up:

1. Go to **Settings** > **Sound & vibration**.
2. Turn **Power on sounds** off .

You can't adjust the volume level for this sound.

Turn off charging sounds

If you don’t want your phone to make a sound when it comes in contact with a charger:

1. Go to **Settings** > **Sound & vibration**.
2. Turn off **Charging sounds and vibration**.

Turn touch sounds on/off

1. Go to **Settings** > **Sound & vibration**.
2. Do any of the following:
   - To hear a tone when you dial a number, turn on **Dial pad tones**.
   - To hear a click when you lock or unlock the screen, turn on **Screen locking sound**.
   - To hear a click when you touch something on the screen, turn on **Touch sounds**.

If you don't want any of these sounds, just turn them off .

Hear other notification sounds

You can assign a ringtone for notifications from specific apps.

You can also control sounds that notify you of other events:

1. Go to **Settings** > **Sound & vibration**.
2. To hear a confirmation tone and feel a vibration when you successfully connect your phone to a charger, turn **Charging sounds and vibration** on .

2. To feel a vibration when you make a call and the other party answers, touch **Vibration & haptics** and turn **Outgoing call vibration** on .

If you don't want any of these sounds, just turn them off .

Turn notifications on/off

Turn app's notifications off

When you receive unwanted notifications from an app, touch & hold the notification, then touch **Turn off notifications**.

To review all apps and adjust whether they can send notifications:

1. Swipe down to view your notifications.
2. At the bottom of the list, touch **Manage**.
3. Touch **App settings**.
4. Do one of the following:
   - To stop all notifications from an app, turn it off.
   - To stop certain notifications from an app, touch the app name, then turn notifications or off for each category.
   - To stop an app from showing notifications as a banner across the top of an unlocked screen, like those for incoming calls, touch the app name, (if needed, touch the notification type), then turn **Pop on screen** off for the category.

Tip: To prevent notifications from all apps during certain times or calendar events, use Do Not Disturb.

Turn app's notifications on

If an app isn't sending notifications but you want it to:

1. Go to **Settings** > **Notifications**.
2. Touch **App settings**.
3. At the top, touch and select **Turned off**.
4. Turn notifications on as needed.

Control lock screen notifications

If you've set a pattern, PIN or password, you can control which type of notifications show on your lock screen and prevent them from revealing private information.

To adjust notifications for all apps:

1. Go to **Settings** > **Notifications**.
2. To hide sensitive content on your lock screen, turn **Sensitive notifications** off.

   You'll get lock screen notifications for an incoming email or chat, but they won't include message details.

   For finer control, leave this on to allow details, and instead hide sensitive content from specific apps.

3. To change which notifications show on your lock screen (show all, hide notifications from apps you silenced, or hide all), touch **Lock screen**.

Tip: When you turn on Lockdown, notifications won't show on your lock screen.

Turn on snoozing

If you want to be able to snooze notifications by dragging them left or right, turn on snoozing:

1. Go to **Settings** > **Notifications**.
2. Turn **Allow notification snoozing** on .

Control notification sound

Change notification volume

To adjust the volume level of all notifications:

1. Press a Volume button and on the screen touch .
2. Adjust the **Notification volume** slider.

Change notification sound

To change the sound for all app notifications:

1. Go to **Settings** > **Sound & vibration** > **Default notification sound**.
2. Do one of the following:
   - To change it, choose a new sound.
   - To turn notification sounds off, select **None**.

To change the notification sound for a specific app:

1. Go to **Settings** > **Apps**.
2. Touch **See all # apps**, select the app, and touch **Notifications**.
3. Touch the category for checkmarked notifications, then touch **Advanced** > **Sound & vibration**.
4. Select a unique ringtone, or set it to none.

If an app's notifications are silent but you want to hear them:

1. Touch & hold a notification.
2. Touch **Default**.

To let an app's notifications be heard when Do Not Disturb is on:

1. Go to **Settings** > **Apps**.
2. Touch **See all # apps** select the app, and touch **Notifications**.
3. Touch the category for enabled notifications and turn **Override Do Not Disturb** on .

Silence an app's notifications

To temporarily silence notifications from **all** apps, use Do Not Disturb.

Change to Silent

If you want an app's notifications to be less intrusive, you can categorize them:

- **Default**: You'll hear a sound and feel vibration (if on), get a message on your lock screen, and can see the app's icon in your status bar.
- **Silent**: You won't hear a sound or feel a vibration. The notification icon will still show in the status bar, unless you hide them.

Option 1: On a notification

1. Touch & hold a notification.
2. Touch **Silent**.

Option 2: In Settings

1. Go to **Settings** > **Notifications** > **App settings**, and select the app.
2. Touch the type of notification to change.
3. Touch **Silent**.

Hide status bar icons for silent notifications

1. Go to **Settings** > **Notifications**.
2. Turn **Hide silent notifications in status bar** on .
3. Restart the phone to apply the new settings.

   You won't see the icon in the status bar for any silent notifications. When you swipe the status bar down, the icon appears in the pull-down along with the notification.

Tip: In phone Settings, you can only hide status bar icons for all apps. If you want to hide status bar icons for a single app, open the app and look in its settings. Only some apps let you do this.

Hide silent notifications

1. Go to **Settings** > **Sound & vibration** > **Do Not Disturb**.

   Or, in quick settings, touch & hold .
2. Touch **Display options for hidden notifications**.
3. Select what to allow or block:
   - **No sound from notifications**: You will see notifications in the pull-down list of all notifications but won’t hear their sound.
   - **No visuals or sound from notifications**: You won’t see or hear notifications.
   - **Custom**: Start with not seeing or hearing notifications, and make small adjustments, like allowing the notification light to blink.

Control which apps read your notifications

Some apps need to access notifications from other apps to work properly. For example, a smart driving companion app needs to access notifications from other apps in order to read them aloud when you're driving.

Be sure that apps with access to your notifications have legitimate reasons, because with this access they can:

- Read all notifications, including personal information like contact names and text messages
- Dismiss notifications
- Answer calls
- Turn **Do Not Disturb** on or off

Check which apps can read your notifications

1. Go to **Settings** > **Notifications** > **Device & app notifications**.
2. Under **Allowed**, review the list of apps.

Prevent an app from reading your notifications

1. Go to **Settings** > **Notifications** > **Device & app notifications**.
2. Under **Allowed**, touch the app name.
3. Turn **Allow notification access** off .
4. Touch **Turn off**.

If you restrict an app's access to notifications and then find the app isn't working properly, you can restore access.

Allow an app to read notifications

1. Go to **Settings** > **Notifications** > **Device & app notifications**.
2. Under **Not allowed**, touch the app name.
3. Turn **Allow notification access** on .
4. Touch **Allow**.

Charge phone

How to charge phone

Your phone is like a small computer, giving you tons of information and apps. Depending on what you use, that can take a lot of power. Plan on charging the phone each night so it's ready for the next day.

1. Connect your phone to the charger that came with your phone.

   Other chargers, including laptops, can charge more slowly.

2. Insert the plug into an electrical outlet.

   When the phone is off and charging, you'll see the outline of a battery and a percentage. If the battery is completely discharged, this will not appear until the phone has received the minimum voltage required to boot.

   When the phone is on and charging, you'll see in the status bar.

Tips for charging phone

- You can use your phone while charging. To charge faster, don't use your phone while charging.
- If you can't turn the phone on while it's charging, wait until it receives enough voltage before turning it on.
- When the battery gets low, the phone sends a notification.
- Use Battery Saver mode when the battery is low.
- You can turn off charging sounds.

Extend battery life

Choose settings that use less battery

To get the most life from your battery:

- **Connections:** Turn off Bluetooth and GPS when you're not using them.
- **Wi-Fi:** Turn on Wi-Fi when the phone is in a location with Wi-Fi coverage.
- **Screen:** Turn down screen brightness, change to Dark theme, and set a shorter screen timeout.
- **Sync:** If you don't need it, turn off automatic syncing for all accounts. This means you won't receive notifications when updates occur and you'll need to manually sync to get new emails.

Temporarily conserve battery power

Use Battery Saver mode to keep going on a low battery.

Also, avoid these battery-intensive activities until you can charge:

- Recording or watching videos

- Listening to music
- Taking pictures
- Using Live (animated) wallpaper

See what's using your battery

To see if a specific app or service is draining your battery:

1. Go to **Settings** > **Battery** > **Battery usage**.
2. Swipe up to view the list of apps and features using power since the last full charge.
3. Touch the app or feature using a lot of power.
4. Under **Manage battery usage**, touch options for reducing the power usage.

Keep adaptive battery on

When you keep adaptive battery on, infrequently used apps will run less when you're not using them. Your phone will learn how you use apps over time and adjust for best battery life.

1. Go to **Settings** > **Battery** > **Adaptive Battery**.
2. Turn **Use Adaptive Battery** on .

Use Battery Saver mode

When Battery Saver is on

Battery Saver helps you keep going on a low battery until the next charge.

To save power, your phone will:

- Turn on Dark theme (You can turn it off, but that uses more battery.)
- Wait until you look at an app to refresh its content, like email or news
- Stop apps from doing things in the background
- Stop using Location services when your screen is off

When the phone is in Battery Saver mode, you'll see in the status bar.

Turn Battery Saver on or off

Turn it on/off yourself

Open quick settings and touch .

Have it turn on automatically

To turn on when your battery is below a specified level:

1. Open quick settings, then touch & hold .
2. Touch **Battery Saver** > **Set a schedule** > **Based on percentage**.

3. Move the slider to adjust the percentage when Battery Saver switches on.

Tip: Battery Saver turns off while your phone is charging. It turns back on when you unplug the phone.

Let it turn off when your phone is charged

To turn off automatically when your battery reaches 90%:

1. Open quick settings, then touch & hold .
2. Touch **Battery Saver**.
3. Make sure **Turn off when charged** is on .

Show battery percentage in status bar

To show the percentage of battery power remaining in the status bar:

1. Go to Settings > **Battery**.

   Or, open quick settings, then touch & hold .
2. Turn **Battery percentage** on .

About storage options

Phone internal storage

You can store photos, videos, music, and applications on your phone. Files you downloaded from the internet and attachments you save from email or text messages are stored there, too.

You can free up space when needed.

SD card storage

You can store media files on an SD card. Just insert the card and move your files from phone storage to the SD card.

Benefits include:

- Immediate access to your files
- No cellular data or internet connection required to access files
- More control over privacy

Cloud storage

Clouds are great for storing files, like photos, videos, and music, you want to share and access from other devices.

Benefits include:

- Access your files from any device with an internet connection
- File synchronization - no need to keep track of multiple versions in multiple storage locations
- Backups of photos and videos available if phone is lost or damaged

Cloud storage providers typically offer free storage that can be expanded with a paid subscription once you reach the free-storage limit. Or you can manage your free storage by removing files you no longer need to make space for new ones.

Apps like Drive and Gallery let you easily back up media to cloud storage.

Manage phone storage

Free up space by scanning

To scan your phone for old and unused items to remove, like downloads and unused apps:

1. Open the **Files** app.
2. Touch **Clean**.

   You'll see suggestions for categories of items to check and free up space.
3. Touch the suggestions and follow onscreen instructions to uninstall, move, or delete items.

If you don't see suggestions to free up space, check that suggestions are on:

1. Open the **Files** app.
2. Touch ☰ > **Settings**.
3. Touch **Notifications** and turn on ones you want to receive.

Free up space manually

To free up space:

1. Open the **Files** app.
2. Touch **Browse**.
3. Touch a category (apps, images, videos, etc.) to view that type of item.
4. Do any of the following:
   - To uninstall apps, touch the app's name, then touch **Uninstall**.
   - To clear an app's cache, touch the app's name, then touch **Storage & cache** > **Clear cache**.
   - To clear your data for an app, touch the app's name, then touch **Storage & cache** > **Clear storage**.
   - To delete media or other files, touch & hold to select one or more items, then touch 🗑.

Manage SD card

Move photos, videos, music to SD card

To free up internal storage on your phone:

1. Be sure you've inserted and set up your SD card.
2. Open the **Files** app and touch **Clean**.

   Or, go to **Settings** > **Storage**, then touch ⋮ > **This device** > **Free up space**.
3. If there are media files to move, touch the option to free up space.
4. Select items to move.
5. Touch **Move to SD card** > **Move**.

Tip: You can set the camera to store all new photos and videos on the SD card.

Move apps to SD card

You cannot store apps on the SD card because it is portable storage. If needed, you can free up space on your phone.

Eject SD card

Drag the SD card notification down, and touch **Eject**.

If you don't see the notification:

1. Go to **Settings** > **Storage**.
2. Touch and select your SD card.
3. Touch > **Eject**.

It's now safe to remove the card from the phone.

To insert the card into another device (computer, projector, etc.) that uses different card dimensions, you may need the adapter that came with your card. See device manufacturer's instructions for the type of adapter required and insertion instructions.

Erase SD card

1. Go to **Settings** > **Storage**.
2. Touch and select your SD card.
3. Touch > **Format**.
4. Follow onscreen instructions to format the card.

Find downloaded files

You can download files and store them on your phone, including:

- Photos, videos, and documents you save from emails or texts
- Books, movies, or other content that you buy from Play Store and save for offline viewing
- Other files or images you download from the web

When the file has finished downloading, you'll see in the status bar. Touch the notification to open the file in the appropriate app.

To view, edit, or delete downloads:

1. Open the **Files** app.
2. Touch **Browse** > **Downloads**.
3. Do any of the following:
   - To open or play a file, touch it. You can only edit some types of files.
   - To sort files by name, date modified, or size, > **Sort by**.
   - To share a file, touch & hold it, then touch .
   - To delete a file, touch & hold it, then touch .

Tip: To access downloads from a computer, connect your phone with a USB cable. Then open the phone's internal storage, and look for files in the Downloads folder.

Recover recently deleted files

You can try to recover recently deleted photos, videos, or texts. But do so as soon as possible. The more you use the phone, the more likely the file will be overwritten with new data.

1. Search for “file recovery” in Play Store and install one of the apps.
2. Use the app to scan your phone.
3. If you can't recover recently deleted items, try connecting your phone to your computer with a USB cable and using a desktop program for file recovery.

Tip: Back up your photos to the cloud so you won't lose them if you delete them from your phone.

Upload music to cloud

You can store songs from your library in the cloud, for free, with Google YT Music (not available in all countries). Then you can instantly listen to your tunes wherever you are.

You can upload music from your:

- iTunes library
- Windows Media Player library
- My Music folder, or any folder on your computer

To upload your music:

1. On your computer, visit music.youtube.com
2. Click on your profile picture > **Upload music**.

   To learn more, read Google's help.

After you’ve uploaded your music, you can listen to it:

- On your computer by visiting music.youtube.com
- On your phone with the YT Music app

Scan documents and make copies

Scan document to Drive

You can scan important documents with your phone and save them as PDFs on Google Drive.

1. Open the **Drive** app.
2. Touch + > .
3. Align your phone over the document to scan and touch .
4. Touch .

5. Optionally:
    - Touch to crop.
    - Touch to select image enhancement options.
    - Touch to rotate the image.
    - Touch to reset the scanner (deletes current unsaved scan).
    - Touch to rename, and adjust image and PDF settings.
6. When you've finished scanning, touch **Next**.
7. Change the document title and folder on Drive, if desired, then touch **Save**.

In Drive, open the file and touch to share or print the scan.

Use location services

About location information

You can let your phone use GPS, Wi-Fi networks, mobile networks, and sensors to estimate your location. Apps that have your permission can use this information to deliver location-based services, such as the ability to check in, view traffic, find nearby restaurants, or tag your photos with the location where you took them.

Turn location on or off

To control what location information your phone can use:

1. Go to **Settings** > **Location**.
2. Turn **Use location** on or off to give or remove permission to use your location information.

   When it's off, your phone can't find your precise location or share it with any apps. However, turning this off disables many useful features and apps.

Tip: To add a Location tile to quick settings, open quick settings. Touch . Then drag the Location tile where you want it.

Review apps using your location

To see which apps have recently accessed your location:

1. Go to **Settings** > **Location** > **App location permissions**.

   You'll see apps listed by those allowed all the time, some of the time, and not allowed.
2. To change permissions, touch the app name, then select the location access you want.

Review services using your location

1. Go to **Settings** > **Location** > **Location services**.
2. Touch a service to open its settings:
   - **Emergency Location Service**: Sends your location to emergency responders when you call or text an emergency number.
   - **Google Location Accuracy**: Improves location accuracy for Maps and Find My Device.
   - **Google Location History**: Clear saved location details and turn location history on or off.
   - **Google Location Sharing**: View who’s sharing your location, change sharing duration, and stop sharing.
   - **Wi-Fi scanning**: Allow or prevent apps and services from scanning for Wi-Fi networks at any time, even when Wi-Fi is off.
   - **Bluetooth scanning**: Allow or prevent apps and services from scanning for nearby Bluetooth devices at any time, even when Bluetooth is off.

Fix an issue

Issue: Location isn't working

After each step, check to see if the issue is fixed.

1. Turn location off and then on again.
2. Turn airplane mode on, wait 15-20 seconds, then turn it off again.
3. If you're using a case, remove it and check if GPS is working. The case might be obstructing the sensor.
4. Check if Battery Saver is on. To save power, when Battery Saver is on, your phone disables location services.
5. Turn your phone off and then on again.
6. Check for updates to the Maps app. After updating the app, restart your phone.
7. Clear the cache and data for the Maps app.
8. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.

   If location works correctly in safe mode, a 3rd party app is probably causing the issue. A lot of apps use your phone's location. If these apps end up with corrupted files, it can affect your phone's location too.

Issue: Location isn't accurate

Turn accuracy on:

1. Go to **Settings** > **Location**.
2. Touch **Location services** > **Google Location Accuracy**.
3. Turn **Improve location accuracy** on .

   When this setting is on, your phone uses GPS, Wi-Fi, mobile networks, and sensors to get the most accurate location.

   When it's off, your phone uses only GPS to find location, which can be slower and less accurate.

Let your phone scan for nearby Wi-Fi networks or Bluetooth devices:

1. Go to **Settings** > **Location**.
2. Touch **Location services**.
3. Turn **Wi-Fi scanning** and **Bluetooth scanning** on .

Visual assistance

Adjust colors if you’re color blind

1. Go to **Settings** > **Accessibility**.
2. Touch **Color and motion**.
3. Touch **Color correction** and turn **Use color correction** on .
4. To replace all screen colors with gray tones, choose **Grayscale**. Or, correct colors based on your vision:

How you see colors	Option to choose
It’s difficult to tell violet from blue. Yellow and green appear redder.	Red-green (Green weak, deuteranomaly)
Colors aren’t bright. Red, orange, and yellow appear greener.	Red-green (Red weak, protanomaly)
It’s difficult to tell yellow and red from pink. Blue appears greener.	Blue-yellow (Tritanomaly)

Color correction is an experimental feature and might not work correctly everywhere on your phone.

If colors don't appear as you expect, troubleshoot the issue.

Make screen extra dim

If the brightness slider in quick settings doesn't go low enough, you can set the screen to extra dim.

Set it up

1. Go to **Settings** > **Accessibility** > **Extra dim**.
2. Turn **Make screen extra dim** on .

   The first time you do this, Extra dim is added to quick settings.
3. Use the **Intensity** slider to dim the screen.
4. Optionally:
   - After you restart the phone, Extra dim will be turned off. To prevent this, turn on **Keep on after device restarts** .
   - If you want to turn this on/off using accessibility shortcuts instead of quick settings, touch **Extra dim shortcut** and select the shortcuts to use.

Use it

Open quick settings and touch to turn it on/off. Touch & hold to adjust intensity and other settings.

Or, if you set up accessibility shortcuts, touch or press & hold both Volume buttons at the same time.

Bold all text

To change all text on the screen to bold for easier reading:

1. Go to **Settings** > **Accessibility** > **Color and motion**.
2. Turn **Bold text** on .

Magnify the screen

You can magnify the screen by triple tapping it or by swiping up from the bottom of the screen with two fingers. If you're using 3-button navigation, you can add to magnify.

Set it up

To set up the way to start (zoom in) and stop (zoom out) magnification:

1. Go to **Settings** > **Accessibility** > **Magnification**.
2. Turn **Magnification shortcut** on .

Use magnification

To zoom in/out:

1. To start magnification, touch .

   You'll see an orange border around the screen.
2. Touch the area of the screen to magnify, then:
   - Drag two or more fingers to scroll.
   - Pinch two or more fingers to adjust zoom.
   - Touch to magnify a framed area instead of the full screen. Then use two fingers or to drag the frame around the screen.
   - Touch to switch to full screen magnification.
3. To turn magnification off, touch .

   The orange border disappears.

To zoom temporarily:

1. Start magnification: swipe up from bottom of screen with two fingers, or touch .
2. Touch & hold anywhere on the screen, then:
   - Drag to move around the screen.
   - Lift your finger to zoom out.

You can't zoom in on the keyboard or the buttons.

Tip: You can also adjust font and display size.

Use TalkBack to read screens

Hear descriptions of everything you touch.

Enable TalkBack

1. Go to **Settings** > **Accessibility**.
2. Touch **TalkBack** and turn **Use TalkBack** on .
3. Touch **Settings** and set the options you want.

When TalkBack is on

- Touch an item. Your phone speaks the name.
- Start typing. Your phone speaks each number or letter.
- Drag status bar down. Your phone speaks all of the notifications.
- Open a message, file, or book. Your phone reads the text out loud.

Change readout volume

- Press a Volume button to open volume settings, then use the slider to adjust the level.
- Or, during voice readout, repeatedly press a Volume button.

Stop readout

To pause or resume readout, press & hold both the Volume Up and Down buttons at the same time for three seconds, until you hear confirmation that TalkBack is on or off. You can change the accessibility feature associated with this shortcut.

Or, turn TalkBack off:

1. Go to **Settings** > **Accessibility**.
2. Touch **TalkBack** and turn **Use TalkBack** off .
3. To use the Volume keys or a swipe gesture as a shortcut to turn the reader on/off, touch **TalkBack shortcut**, then select keys or gesture.

More assistance

You can also:

- Use voice commands
- Dictate text instead of typing
- Set your phone to make confirmation sounds after you touch or unlock the screen
- Assign a ringtone for notifications from specific apps

Hearing assistance

Turn on video captions

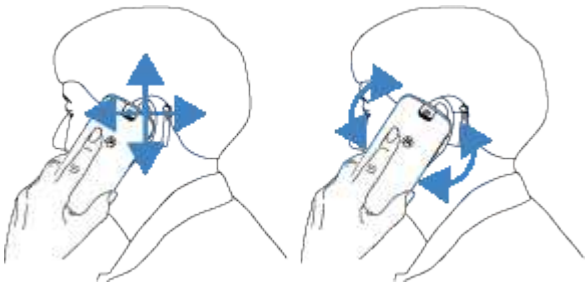
1. Go to **Settings** > **Accessibility**.
2. Touch **Caption preferences** and turn **Show captions** on .
3. Specify options (language, text size, and style) for closed captioning.

Use hearing aids

To improve compatibility with hearing aids and reduce sound feedback:

1. Touch .
2. Touch > **Settings** > **Accessibility**.
3. Turn **Hearing aids** on .

During a call, hold the phone to your ear, then rotate or move it to get the best position for speaking and listening.



Set up TTY device

Not all carriers support this feature.

For text-based communication, you can use text messaging and email.

If you prefer to connect to a TTY device:

1. Touch .
2. Touch > **Settings** > **Accessibility** > **TTY mode**.
3. Select a mode:
   - **TTY Full**: Type and read text on your TTY device.
   - **TTY HCO**: Type text on your TTY and listen to voice replies on your phone.
   - **TTY VCO**: Speak into your phone and read text replies on your TTY.
4. Connect your phone and TTY with the audio cord that came with your TTY.

Dexterity assistance

Change timing controls

If you need more time to respond to a notification or messages that are visible only temporarily, you can adjust the time before they disappear:

1. Go to **Settings** > **Accessibility**.
2. Touch **Timing controls**.
3. Adjust settings:
   - There are two basic gestures for controlling your phone: *touch* and *touch & hold*. You can adjust the amount of time before your touch on the screen becomes touch & hold. If you find that you accidentally touch & hold when you intend to touch, choose a longer delay. Use **Touch & hold delay** to select short, medium, or long delay.
   - If messages that ask you to take action are disappearing too quickly, touch **Time to take action** and choose a longer time. Not all apps support this setting.
   - If you're using a connected mouse, you can set the cursor to click automatically when the cursor stops moving for an amount of time. Touch **Autoclick (dwell timing)** and select the amount of time.

Use external switch or keyboard

If you're unable to use a touchscreen, Switch Access lets you control the phone using external switches or keyboard keys to select items, scroll, enter text, and more.

To use Switch Access, you must have one of the following:

- **An external switch.** USB or Bluetooth switch devices send keystroke signals to your phone.
- **An external keyboard.** Standard USB or Bluetooth keyboards can work as switch devices by assigning one or more keys to actions.

Set up Switch Access

1. Go to **Settings** > **Accessibility**.
2. Touch **Switch Access**.
3. Turn **Use Switch Access** on .
4. Follow onscreen instructions to select:
   - Number of switches
   - Face gesture settings
   - Scanning options
   - Switch assignments

To adjust options for Switch Access later, go to **Settings** > **Accessibility** > **Switch Access** > **Settings**.

Use Switch Access

1. Connect the external device to your phone by pairing with Bluetooth or using USB. See the manufacturer's instructions for details.

2. Press the assigned switch or key to scan and highlight items on the screen or to select highlighted items.

Use accessibility shortcuts

Use accessibility menu

Get quick access to an accessibility menu that gives you better control of your phone.

To turn it on:

1. Go to **Settings** > **Accessibility**.
2. Touch **Accessibility Menu**.
3. Turn **Accessibility Menu shortcut** on .

> **Tip:** To increase the size of the buttons on this menu, touch **Settings**, then turn **Large buttons** on .

If you're using gesture navigation:

1. Use two fingers to swipe up from the bottom of the screen.

   If you've set other accessibility tools to use this gesture, swipe up with two fingers and hold to switch between tools.
2. Choose an option from the menu.

If you're using 3-button navigation:

1. At the bottom of the screen, touch .

   If you've set other accessibility tools to use this icon, touch & hold it to switch between tools.
2. Choose an option from the menu.

Press Volume buttons to start/stop TalkBack

You can press the Volume buttons to turn the screen reader TalkBack on or off.

Enable the shortcut

1. Go to **Settings** > **Accessibility** > **TalkBack**.
2. Turn **TalkBack shortcut** on .

Use the shortcut

Press and hold the Volume Up and Down buttons at the same time for three seconds.

You'll hear confirmation that the feature has been turned on or off.

Set or change default apps

If you have multiple apps that do the same thing, you can pick which app to use by default.

Pick when asked

Sometimes, your phone asks which app to use. For example, your phone might ask which app to use to open a PDF file.

To set a default when asked:

1. Touch the app to use.
2. Pick how often you want to use that app for this action: **Always** or **Just once**.

If you select Always, you won't be asked which app to use anymore. To have your phone ask you again, you can clear the default:

1. Go to **Settings** > **Apps**.
2. Touch **Default apps** > **Opening links**.
3. Touch the app you selected as default.
4. Touch **Open supported links** and select **Ask every time**.

Pick any time

You can change some default apps (such as browser or messaging) at any time:

1. Go to **Settings** > **Apps**.
2. Touch **Default apps**.
3. Touch the default to change.
4. Touch the app to use.

Adjust special app access

In **Settings** > **Apps** > **Special app access**, you can adjust these settings:

- **Usage access**: Control which apps have access to data about your app usage (what other apps you're using and how often, your carrier, language settings, and other details).
- **Unrestricted data**: Allow certain apps to use background data even when Data Saver is on. Learn more.

You can also control whether apps have access to features such as Battery optimization, and Do Not Disturb. In general, you shouldn't need to adjust these.

Add or remove accounts

Add Google account

When you set up your phone, you were prompted to add a Google account. If you skipped this, be sure to set one up now so you can download apps from Play Store, get a customized information feed, and take full advantage of the Calendar, Gmail, and other apps included with your Google account.

To add a Google account:

1. Go to **Settings** .
2. Touch **Passwords & accounts** > **Add account**.
3. Touch **Google** and follow the onscreen instructions to add an existing account or to create a new one.
4. Once the account is added, Calendar, Contacts, and other account features and apps are updated with information from that account. You can review and change what syncs with your phone for that account.

Tip: Keep your apps up-to-date. To see if newer versions of the apps associated with your Google account are available, open the Play Store app and touch your profile icon > **Manage apps & device**.

Add email or app account

Accounts are automatically added when you:

- Set up corporate email
- Set up personal email for non-Gmail addresses
- Install apps that require a username/password to log in, such as messaging, shopping, or streaming content

To review these accounts or add another:

1. Go to **Settings** .
2. Touch **Passwords & accounts** > **Add account**.
3. Touch the type of account to add and follow the onscreen instructions.

   If you don't see the type of account you want to add, install the related app from Play Store, then sign into your account through the app.
4. Once the account is added, account-related features and apps are updated with information from that account. To review and change what syncs with your phone, touch the account type, then account name.

Remove account

If you remove an account, information you synced will be removed from your phone, but it is not deleted from your account.

To remove an account:

1. Go to **Settings** > **Passwords & accounts**.

2. Touch the account name.
3. Touch **Remove account**.

Tip: If you have trouble removing a corporate account, go to **Settings** > **Security** > **More security settings** > **Device admin apps** and turn off the app for the account, then try to remove it again.

Change name & info in your Google account

You can update, add, and remove basic info for your Google account:

1. Go to **Settings** > **Google** > **Manage your Google Account**.
2. Touch **Personal info**.
3. Update information as needed. Add or change your profile picture, edit your name and birthday. Learn more.

Forgot your Google password, or want to change it? Learn how to reset your password.

Other questions about your account? Read Google's help.

Sync apps with your Google account

About syncing

What sync does

When your phone syncs, your Google apps refresh their data, and you get notifications about updates.

Which apps sync

By default, apps made by Google sync automatically. You can turn auto-sync off and back on for individual apps.

Whether other apps (not made by Google) can sync varies by app.

If you turn off auto-sync

Turning off auto-sync doesn’t remove the app or your data. It only stops the app from automatically refreshing your data.

To receive emails, calendar reminders, or other notifications from Google apps, you’ll need to sync manually.

See which apps auto-sync

See which Google apps auto-sync

1. Go to **Settings** > **Passwords & accounts**.
2. Touch the account name.
3. Touch **Account sync**.
4. Review the list of your Google apps and when they last synced.

Check other apps

To see if your other apps can auto-sync:

1. Go to **Settings** > **Passwords & accounts**.
2. Review the list of accounts:
   - If the app isn't listed, then it can't auto-sync.
   - If it is listed, touch its name to see any sync options you can adjust.

Turn off auto-sync

Turn off for certain Google apps

1. Go to **Settings** > **Passwords & accounts**.
2. If you have multiple accounts on your phone, touch the one you want.
3. Touch **Account sync**.
4. Turn off the apps you don't want to auto-sync.

   For example, sync your Calendar and Gmail but don't sync Drive.

Turn off for your Google account

1. Go to **Settings** > **Passwords & accounts**.
2. Turn **Automatically sync app data** off .

   To collect messages, email, calendar, or other app updates, you'll need to sync the accounts manually.

Tip: Turning off auto-sync can help save battery life. To start auto-sync after your battery recharges, turn it back on .

Sync manually

1. Go to **Settings** > **Passwords & accounts**.
2. Touch the account name.
3. Touch **Account sync** > > **Sync now**.

Fix an issue

Select an issue to see troubleshooting steps:

- Account sync issues
- Forgot password for Google account
- Problems with Facebook, WhatsApp, other apps

Control what info Google collects

Google collects information from you to provide personalized services and tailored content, as outlined in the Google Privacy Policy.

You can review, delete, and control the information Google collects about you. Learn more from Google about:

- Viewing and controlling what information is collected (search, YouTube, recordings of your voice commands, location).
- Deleting your search history and other activity.
- Reviewing your location history.
- Any other questions about your account.

About security

Screen lock options

To keep your phone secure, use a screen lock when it goes to sleep:

- Set up a pattern, PIN, or password to unlock your phone.
- Add a Smart Lock to unlock automatically when connected to a trusted device, when you're at a trusted place (like home or work), with facial recognition, or until you set your phone down.
- You can access notifications and quick settings, start a call, and open the camera from the lock screen.
- You can make emergency calls on a locked phone. A locked phone still rings; you don't need to unlock it to answer.
- If you forgot your pattern, PIN, or password, follow these steps.

You can customize the lock screen by adding your contact info. You can also control which notifications appear on your lock screen.

Additional security options

- Protect your phone in case it’s lost or stolen. Use Find My Device.
- Connect to a virtual private network if you need to access files on a secure network.
- See when apps are using your microphone and camera and block them if needed.
- Add a SIM lock to prevent others from using your cellular plan and accessing account information if your phone is stolen.
- Prevent viruses and other attacks on your data and privacy with Google Play Protect.

Protect against harmful apps

Scan phone for harmful apps

Play Protect helps keep your phone secure by automatically scanning your apps, including sideloaded apps, to check for potentially harmful apps (malware).

If Play Protect finds a potentially harmful app, it stops the app from running and warns you so that you can uninstall it.

To see the results or to rescan:

1. Open the **Play Store** app.
2. Touch your profile icon > **Play Protect**.
3. Review the results of the latest scan, or touch **Scan**.

Play Protect is on by default.

To learn more, read Google's help.

If your phone seems slow

If you've scanned your phone to confirm there aren't any potentially harmful apps but your phone seems slow, troubleshoot the issue.

Make sure your phone can be found

Make sure your phone can be found. Find My Device allows you to remotely locate, lock, and erase your phone.

If you ever need to find your phone, your phone will need to:

- Be turned on
- Be signed in to a Google account
- Be connected to mobile data or Wi-Fi
- Have location services turned on. If location services are off, you can lock or erase the phone, but cannot locate it.
- Have Find My Device turned on

To check that Find My Device is on for your phone:

1. Go to **Settings** > **Security**.
2. Touch **Find My Device** and turn it on .

To confirm that you can find your phone, go to android.com/find on your phone or from a computer.

If you have lost your phone, consider calling your carrier to suspend your account. If your phone doesn't have a SIM lock and it's stolen, someone could use your SIM card.

Set screen lock

You can set up a screen lock to secure your phone. Each time you power on your phone or turn on the screen, you'll be asked to unlock it.

Set or change screen lock

1. Go to **Settings** > **Security**.
2. Touch **Screen lock** and select the type of lock you want.

   Some lock options aren't available if you added a VPN or a work (corporate) email account to your phone.

Screen lock types

No lock:

- **None**: This gives no protection, but you can quickly access your home screen.
- **Swipe**: Swipe up. This prevents accidental dialing but doesn't secure the phone.

Lock:

- **Pattern**: Draw a pattern on a grid.
- **PIN**: Enter a four to sixteen digit numeric code. Longer PINs are more secure.
- **Password**: Enter four to sixteen letters, digits, or symbols for the password. A long, strong password is the most secure option.

When you're using any of the 3 locks, you can set your phone to automatically unlock in certain conditions.

Unlock your screen automatically

If you're using a PIN, password, or pattern, you can:

- Stay unlocked when connected to a device, like your car audio system.
- Stay unlocked at a specific location.
- Stay unlocked when holding or carrying your phone.
- Unlock with your face.

Tips:

- You can swipe up from anywhere on the screen when unlocking. You don't need to touch the icon.
- Some of these options aren't available if you added a VPN or a work (corporate) email account to your phone.

Remove screen lock

1. Go to **Settings** > **Security**.

2. Touch **Screen lock**.
3. Enter your current PIN, password, or pattern to confirm your identity.
4. Select **None** or **Swipe**.

Adjust lock options

Set time before locking

Unless kept unlocked automatically, your phone locks the screen five seconds after the screen turns off.

To increase or decrease the amount of time before automatically locking the screen:

1. Go to **Settings** > **Security**.
2. Next to **Screen lock** touch .
3. Touch **Lock after screen timeout**, then select a duration.

Stop Power button from instantly locking

You can manually lock your phone by pressing the Power button. If you want the Power button to turn off the screen but not lock it:

1. Go to **Settings** > **Security**.
2. Next to **Screen lock** touch .
3. Touch **Power button instantly locks** off .

After the screen turns off, your phone will still lock after the time set for the automatic lock.

Hide your password or pattern

You can hide your password or pattern to prevent others from viewing it when you unlock your screen.

For passwords:

1. Go to **Settings** > **Privacy**.
2. Turn **Show passwords** off .

For patterns (if you're using a pattern screen lock):

1. Go to **Settings** > **Security**.
2. Touch .
3. Turn **Make pattern visible** off .

Unlock with trusted devices

Set up trusted devices

You can keep your phone unlocked when it is connected to a trusted device, like your Bluetooth watch or car.

1. Make sure you have:
   - Set a screen lock on the phone.
   - Turned on Bluetooth on the phone.
   - Paired your phone with the device.
2. Go to **Settings** .
3. Touch **Security** > **More security settings** > **Smart Lock**.

   If you don't see Smart Lock, try the following:
   - Update Google Play services. In the Google Search widget on your home screen, search for “Google Play services”, then touch the app to open it in Google Play.
   - Go to **Settings** > **Security** > **More security settings** > **Trust agents** and enable **Smart Lock**.
4. Unlock your phone, then touch **Trusted devices** > **ADD TRUSTED DEVICE**.
5. Touch a device to select it from the list of connected devices.

> **Tip:** If your device isn't in the list, make sure you are paired with it.

When the phone is connected to the device, the phone automatically unlocks.

Remove trusted devices

1. Go to **Settings** .
2. Touch **Security** > **More security settings** > **Smart Lock**.
3. Unlock your phone, then touch **Trusted devices**.
4. Touch the device name and confirm that you want to remove it.

Manually lock phone

If you need to make sure the phone stays locked even when you’re connected to a trusted device, you can manually lock the phone.

On the lock screen, touch . The phone stays locked until the next time you manually unlock it.

Unlock with your face

Set up face matching

1. Make sure you have set a screen lock on the phone.
2. Go to **Settings** > **Security** > **Face Unlock**.
3. Unlock your phone.
4. Follow the onscreen instructions. Be sure to frame your entire face with the outline.

   Face matching data is stored securely on the phone.

Whenever you turn on or wake the phone, it will search for your face and unlock when it recognizes you.

Or, you can customize how face matching works:

- For fastest access, you can skip pressing the Power button to wake the phone and just show the phone your face - it will unlock and go straight to your home screen or last used app. Turn both **Unlock your phone** and **Skip lock screen** on .
- For more privacy, you can keep your phone from unlocking unless you press the Power button. Turn **Unlock your phone** off . And to require that you swipe up on the lock screen after your face is matched, before seeing your home screen, turn **Skip lock screen** off .
- To prevent someone from using your photo to unlock the phone, turn **Liveness Mode** on . You'll need to blink when using face matching. Your phone won't unlock unless it detects facial movement during the match.

Turn off face matching

1. Go to **Settings** > **Security** > **Face & Fingerprint Unlock**.
2. Unlock the screen, then:
   - To turn if off temporarily, switch the slider off .
   - To remove your face data, touch **Delete face model**.

Fix an issue

If you're having trouble getting the phone to recognize your face:

1. Go to **Settings** > **Security** > **Face Unlock**.
2. Unlock your phone, then touch **Delete face model**.
3. Be sure you are in a well lit environment. Avoid low light, strong light, and backlit environments to ensure the face image is clear.
4. Touch **Set up Face Unlock** and follow onscreen instructions to set it up again.

Unlock at trusted places

Set up trusted places

To avoid repeatedly unlocking your phone when you are at familiar and trusted locations (like home or work), use a Smart Lock. You can still manually lock the phone at trusted places when needed.

1. Make sure you have:
   - Set a screen lock on the phone.
   - Turned on location services.
   - Entered your Home and Work locations in Maps if desired. To learn how, read Google's help.
2. Go to **Settings** .
3. Touch **Security** > **More security settings** > **Smart Lock**.

   If you don't see Smart Lock, try the following:
   - Update Google Play services. In the Google Search widget on your home screen, search for “Google Play services”, then touch the app to open it.
   - Go to **Settings** > **Security** > **More security settings** > **Trust agents** and enable **Smart Lock**.
4. Unlock your phone, then touch **Trusted places**.
5. Set up your places:
   - If you added Home or Work locations in Maps, touch the location name and turn it on if desired.
   - To add a location, touch **Add trusted place**. Verify your current location to add it, or touch , type the address to add, and touch **Select this location**.

Manually lock phone

To lock your phone when you're in a trusted place, on the lock screen, touch . The phone stays locked until the next time you manually unlock it.

Remove trusted places

1. Go to **Settings** .
2. Touch **Security** > **More security settings** > **Smart Lock**.
3. Unlock your phone, then touch **Trusted places**.
4. Remove the location from your trusted places:
   - For your Home or Work locations in Maps, touch the location name to toggle it off. To remove the address entirely, you must remove it in Maps.
   - For custom places you added, touch the location name, then touch .

Keep phone unlocked while it's on you

You can keep your phone unlocked while you're holding it in your hand or carrying it in your pocket or handbag. Just unlock it once, and it stays unlocked until you set it down (or manually lock it).

1. Make sure you have set a screen lock.
2. Go to **Settings** .
3. Touch **Security** > **More security settings** > **Smart Lock**.

   If you don't see Smart Lock, try the following:

   - Update Google Play services. In the Google Search widget on your home screen, search for "Google Play services", then touch the app to open it.
   - Go to **Settings** > **Security** > **More security settings** > **Trust agents** and enable **Smart Lock**.
4. Unlock your phone, then touch **On-body detection**.
5. Turn it on.

Pin an app screen

Turn on pinning

Use pinning to keep the current app in view until you unpin it. For example, you can pin a game and your child cannot navigate anywhere else on your phone.

You can set up a pattern, PIN, or password required to unpin.

1. Go to **Settings** > **Security** > **More security settings** > **App pinning**.
2. Turn pinning on.
3. By default, you must always enter your pattern, PIN, or password when unpinning a screen. If you don't want this security before accessing your other phone screens, turn this option off.

Pin and unpin an app

To pin a screen:

1. Make sure you've turned on pinning and have recently opened the app you want to pin.
2. Drag up from the bottom of the screen, hold, then release.
3. In the recent app list, touch the app's icon at the top of the preview to see .

   Be sure to touch the app's icon instead of the preview, which opens the app.
4. Touch .

To unpin it:

1. Drag up from the bottom of the screen and hold.
2. If you required a pattern, PIN, or password when you turned on pinning, enter it to unlock the phone.

Lock SIM card

Set up SIM lock

This feature is not available in all countries.

Your SIM card came with a default PIN from your carrier. You can use it to set up an optional SIM card lock, which prevents others from using your cellular plan and accessing account information if your phone is stolen.

If you add a SIM lock, you will be prompted to enter the PIN each time you swap SIM cards or restart the phone.

1. Be sure you have the PIN your carrier provided with the SIM card. If you don’t have it, contact your carrier.
2. Go to **Settings** > **Security** > **More security settings**.
3. Touch **SIM card lock**.
4. Turn **Lock SIM card** on .
5. Enter your carrier-provided PIN and follow the onscreen instructions.

Unlock SIM card

When prompted, enter the PIN used to set up the SIM lock.

Caution: If you enter an incorrect PIN multiple times, the SIM will be disabled.

If you accidentally disabled SIM

If you enter an incorrect PIN multiple times, the SIM will be disabled.

Contact your carrier for a PIN unlock key (PUK) to re-enable the SIM.

Change SIM PIN

To change the PIN code for your SIM card:

1. Be sure you have the previous PIN. If you don't, contact your carrier for a PIN unlock key (PUK).
2. Go to **Settings** > **Security** > **More security settings**.
3. Touch **SIM card lock**.
4. If **Lock SIM card** is off, turn it on .
5. Touch **Change SIM PIN**.
6. Enter the previous PIN and touch **OK**.
7. Enter a new PIN and touch **OK**.
8. Re-enter the new PIN and touch **OK**.

Adjust app permissions

The first time you use an app, and sometimes when you install or update it, you are asked to grant the app permission to access certain data and phone features. You can adjust these permissions any time.

To adjust permissions by feature:

1. Go to **Settings** > **Privacy**.
2. Touch **Permission manager**.
3. Touch a feature to see which apps have permission to use it.
4. Turn that permission on or off for each app as needed.

You can also adjust permissions by app.

Control access to your mic and camera

Block mic or camera from app in use

Any time an app uses your mic or camera, you'll see the privacy indicator in the status bar.

When you see the privacy indicator:

1. Swipe the status bar down and touch or to see which app is using it.
2. To block that app from using it:
   a. Touch .
   b. Touch **Microphone** > **Don't allow** or **Camera** > **Don't allow**.

Block/unblock for all apps

To quickly block and unblock access to your mic or camera for all apps:

1. Open quick settings and touch **Mic access** or **Camera access**.
2. Change it to **Blocked**.

   None of the apps on your phone can use it.
3. When you're ready to use the microphone or camera again, change **Mic access** or **Camera access** in quick settings to **Available**.

Hide your password or pattern

You can hide your password or pattern to prevent others from viewing it when you unlock your screen.

For passwords:

1. Go to **Settings** > **Privacy**.
2. Turn **Show passwords** off .

For patterns (if you're using a pattern screen lock):

1. Go to **Settings** > **Security**.
2. Touch .
3. Turn **Make pattern visible** off .

Prepare for emergencies

Set up emergency SOS

In an emergency, you can press the Power button quickly five times or more to start a blaring sound and automatically call emergency responders.

To set it up:

1. Go to **Settings** > **Safety & emergency** > **Emergency SOS**.
2. Turn **Use Emergency SOS** on .
3. To play a loud warning sound when Emergency SOS is starting, turn **Play countdown alarm** on .
4. To change the default regional emergency number dialed for help, touch **Call for help**, enter the number, and touch **OK**.

> **Note:** Don't enter a non-emergency number. If you do, your phone must be unlocked to use Emergency SOS, and your call might not be answered.

To send an emergency SOS, **press the Power button five times or more** to start the countdown alarm and call for help.

To disable this feature, go to **Settings** > **Safety & emergency** > **Emergency SOS**, then turn **Use Emergency SOS** off .

Set up emergency information

You can set up emergency information for first responders or others to view from your lock screen, such as your emergency contact and medical information (blood type, allergies).

To set up your emergency information:

1. Go to **Settings** > **Safety & emergency**.
2. Touch **Emergency information**.
3. Set up your information.

> **Note:** Anyone who picks up your phone can see your emergency info without unlocking your phone.

View emergency information

1. From the lock screen:
   - Swipe up and touch **Emergency call** below the keypad.
   - Or, press and hold the Power button, then touch **Emergency**.
2. Touch **Emergency information** twice.

Add message to lock screen

To add your name or a short message to your lock screen for anyone who finds your phone:

1. Go to **Settings** > **Display** > **Lock screen**.
2. Touch **Add text on lock screen**.
3. Type the text to display and touch **Save**.

Tip: Don't put your mobile number as contact info on your lock screen unless you can access your voicemail from another device.

Send your location to emergency services

Not all carriers and countries support this feature.

If Android Emergency Location Service (ELS) works in your country and on your carrier's network and if you haven't turned off ELS, when you call or text an emergency number, ELS sends your location to authorized emergency responders to help them locate you.

If ELS is off, your carrier might still send the phone's location during an emergency call. For more information, check with your carrier.

To turn ELS on or off:

1. Go to **Settings** > **Location** > **Location services**.
2. Touch **Emergency Location Service**.
3. Turn it on or off .

To learn more about ELS, read Google's help.

Turn emergency alerts off/on

Your phone can receive free alerts to inform you of public safety messages, threats to life and property (like extreme weather), and other emergencies.

When an emergency alert is sent out, appears in the status bar. Touch the notification to read the alert.

You can turn most alerts off or on and adjust alert notification settings.

Note: Because alerts are intended to save lives, please consider carefully before turning alerts off.

1. Go to **Settings** .
2. Touch **Safety & emergency** > **Wireless emergency alerts**.
3. Adjust settings as needed.

Customize the keyboard

Quickly access keyboard settings

On the keyboard, touch .

You can also access your keyboard settings at **Settings** > **System** > **Languages & input** > **On-screen keyboard** > **Gboard**.

Change how keyboard looks

To change the background color of your keyboard:

1. On the keyboard, touch .
2. Touch **Theme**.
3. Select a color to use as the background.
4. Touch **Apply**.

To adjust the keyboard's height for more comfortable typing:

1. On the keyboard, touch .
2. Touch **Preferences** > **Keyboard height**.
3. Select the height you want.

Adjust keyboard sounds

To control whether your keyboard makes sounds:

1. On the keyboard, touch .
2. Touch **Preferences**.
3. To hear sounds when you type, turn **Sound on keypress** on .
4. To adjust how loud the sounds are, touch **Volume on keypress**.

Adjust keyboard vibration

The onscreen keyboard vibrates when you touch a key. Turn off vibration feedback if you prefer not to use it or want to improve battery life.

To adjust keyboard vibrations:

1. On the keyboard, touch .
2. Touch **Preferences**.
3. Do any of the following:
   - Turn **Haptic feedback on keypress** off or on.
   - If on, touch **Vibration strength on keypress** and move the slider.

Disable glide typing

With glide typing, you drag your finger over the letters in a word. If you want to turn this off and only use multi-touch typing:

1. On the keyboard, touch .
2. Touch **Glide typing**.
3. Turn **Enable glide typing** off .

Limit or turn off suggestions

1. On the keyboard, touch .
2. Touch **Text correction**.
3. Adjust settings:
   - If you don’t want predictions based on your previous word, turn **Next-word suggestions** off . You will only see suggestions for the current word you're typing.
   - If you don’t want ANY suggestions, turn **Show suggestion strip** off .
   - You can also turn off (or on) offensive word blocking and suggestions for emoji, stickers, and information from Contacts.

Turn off auto-correction

1. On the keyboard, touch .
2. Touch **Text correction**.
3. If you don’t want words corrected while you type, turn **Auto-correction** off .

Use multiple languages

Change display language

You selected the language for your phone during set up. To change it:

1. Go to **Settings** > **System** > **Languages & input** > **Languages**.
2. Touch & hold the language you want and drag it to the first position in the list.
3. If you don’t see the language you want, touch to add it, then drag it to the first position.

   All languages added to the list will appear on the keyboard's spacebar.

To remove a language, go to **Settings** > **System** > **Languages & input** > **Languages**, then touch > **Remove**, select the language, and touch .

Set language for an app

For specific apps, you can select a language that's different than your phone's default language:

1. Go to **Settings** > **System** > **Languages & input**.
2. Touch the app's name and select the language to use.

   Not all apps support changing languages.

Add language to keyboard

If you want a keyboard for a language that isn't a display language:

1. On the keyboard, touch .
2. Touch **Languages**.
3. Touch **ADD KEYBOARD**.
4. Select the language.
5. Touch **Done**.

Then, switch between languages on the keyboard by touching .

Change System navigation

You can select which navigation option to use for moving between apps and screens.

1. Go to **Settings** > **System** > **Gestures**.
2. Touch **System navigation**.
3. Choose an option:
   - **Gesture navigation**: Use drag and swipe gestures to return to your home screen, to switch apps, or to go back to the previous screen. Learn more about gestures. To adjust sensitivity of the back gesture, touch and move the slider.
   - **3-button navigation**: Use the and buttons. Learn more.

Customize Power button gesture

You can customize the Power button, controlling what happens when you press it twice and when you press & hold it.

Choose what happens when you press Power twice

1. Go to **Settings** > **System** > **Gestures**.
2. Touch **Double press power key**.
3. Choose if you want to open the camera or to start a voice command with Google Assistant. If you don't want anything to happen, choose **None**.

Choose what happens when you press & hold Power

1. Go to **Settings** > **System** > **Gestures**.
2. Touch **Press and hold power button**.
3. Adjust settings:
   - To see the Power menu for turning off or restarting the phone, or going into Lockdown mode or Emergency mode, turn **Hold for Assistant** off.
   - To start voice command with Google Assistant, turn **Hold for Assistant** on.

     Use the slider to adjust how long you need to press & hold before Google Assistant opens.

     To see the Power menu for turning off and restarting, you'll need to press the **Power** + **Volume up** buttons simultaneously.

Turn flashlight on and off

To turn your flashlight on or off:

1. Open quick settings.
2. Touch .

Or, make a chopping motion to turn the flashlight on or off.

If the camera opens instead of turning on the flashlight, be sure to use a chop gesture, not a twist gesture.

To control the chop gesture:

1. Go to **Settings** > **System** > **Gestures**.
2. Touch **Use Fast Flashlight** and turn it on or off.

Back up phone

Back up to Google

You can automatically back up the following items to your Google account:

- Apps and app data
- Call history
- Contacts
- Phone settings (including Wi-Fi passwords and permissions)
- Photos and videos (synced to your Google Gallery library, not to Google Drive)
- SMS text messages (if using Messages)

Tip: Back up over Wi-Fi to prevent cellular data charges.

Not all apps back up data automatically. Check with the app developer.

To automatically back up to Google Drive:

1. Go to **Settings** > **System**.
2. Touch **Backup**.
3. Check that **Backup by Google One** is on. If needed, turn it on.
4. If you have multiple Google accounts, touch **Account** to select an account.
5. Follow the onscreen instructions.

To back up other files that aren't automatically backed up, like attachments or downloads:

1. Open the Drive app.
2. Touch +.
3. Touch **Upload**, then choose the files or folder to upload.

Manage your backup in Drive

On your phone:

1. Open the Drive app.
2. Touch ≡ > **Backups**.

To learn about managing phone backups from a computer, read Google's help.

Restore backed up data

When you add your Google account to a phone, photos, contacts, settings and app data that you previously backed up to that account are restored onto the phone.

Record your IMEI number

The IMEI (International Mobile Equipment Identity) number is the unique code that identifies your phone. You'll need it if you contact support regarding a warranty, and it's important to have if your phone is stolen.

Service providers can use the IMEI to block a stolen phone from cellular networks, and many police departments keep a record of stolen phones using this number.

You may never need your IMEI number, but it's a good idea to record it, just in case.

To find the IMEI number:

1. Go to **Settings** > **About phone**.
2. See **IMEI** for your number.
3. Record and save the number where you can easily access it.

You can also find your IMEI number by dialing ***#06#** in the Phone app. On some phones, the MEID HEX number is your IMEI number.

If your phone doesn't turn on, check the box it came in or the receipt for the IMEI number.

Find legal and product information

To view the electronic regulatory label for your phone, go to **Settings** > **About phone** > **Regulatory labels**.

For safety, environmental, warranty, and other legal information, go to **Settings** > **About phone** > **Legal information**.

Printed legal information may also be provided with your phone.

To find your phone's model or serial number, go to **Settings** > **About phone** > **Model & hardware** > **Model Number (SKU)**.

Phone is slow or unstable

If **a certain app is slow**, try these app-specific troubleshooting steps.

If your phone is slow **when viewing online content**, it could be an issue with your connection. If you're on Wi-Fi, use a different Wi-Fi network, switch to mobile data, or contact your Internet Service Provider. If you're using a mobile connection, switch to Wi-Fi.

If **all apps are slow**, it's probably an issue with your phone, not an app on your phone. Try these troubleshooting steps. After each step, check to see if the issue is fixed:

1. Turn your phone off and then on again.
   - Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**.
   - If your phone is frozen, reboot it by pressing and holding the Power button for 7-10 seconds.
2. Check for system updates.

   Go to **Settings** > **System updates**.
3. Check for app updates.

   Open the Play Store app and touch your profile icon > **Manage apps & device**.
4. Check available storage and clear space if needed.

Phone feels warm or hot

Overview

It's normal for your phone to feel warm, or even hot, depending on how you're using it.

If your phone ever becomes too hot, it will ask you to turn it off so it can cool down. Some phones will stay on but limit the phone's capabilities until it cools down.

If your phone is too hot to touch, use a different phone, tablet, or computer to contact Motorola support.

Reasons your phone may get warm

Doing one or more of the following activities may cause your phone to get warm:

- Playing videos, games, or other media apps
- Using GPS navigation
- Tethering your phone or using it as a Wi-Fi hotspot
- Using phone while it's charging
- Downloading or uploading a lot of data

Ways to keep your phone from heating up

- Pause resource-intensive features or apps until your phone cools down.

- Always use the charger that came with your phone.
- Keep your phone away from direct heat or excessive sunlight.
- Don't keep your phone in enclosed or poorly ventilated areas where heat can easily build up.
- Lower your phone's display brightness.

If you're not using or charging it

Sometimes a process can get stuck in the background. If your phone is hot but you're not using or charging it, turn your phone off and on again. This will stop the previously stuck process and resolve the issue.

Phone won't turn on

If your phone isn't starting, has a black or blank screen, or turns on but immediately turns off, try these steps to fix the issue.

1. Press & hold the Power button for 5-7 seconds, or up to 30 seconds.

   This restarts (reboots) your phone.

2. Charge the phone.

   If your phone has a sign-of-life indicator, look for a white light near the top front of the phone. This indicates that the phone is charging but battery is too low to power the screen.

   If you're having problems charging, try these troubleshooting steps.

3. If you don't see a battery icon after you plug your phone in to charge, the issue could be with your screen. Check if your phone rings by calling it from another phone. If it rings, the issue is with your screen and you can try these troubleshooting steps.
4. Perform an external reset of your phone. Learn how.
5. If you have a Windows PC, download to your PC and try reinstalling the phone's system software.

Phone restarts or crashes

If your phone randomly reboots, restarts, or shuts down without restarting, try the following.

1. Restart your phone:
   a. Hold down the Power button for about 30 seconds.
   b. If this doesn't work, connect your phone to charge for at least 5 minutes. Then, while connected to the charger, restart again by holding down the Power button for 30 seconds.
2. Troubleshoot your phone:
   a. Check if a software update is available for your phone.
   b. Check available storage and clear space if needed.

      You may see issues if your phone's internal storage is almost full. To free up space, remove unnecessary files and clear cached data.

3. Troubleshoot your apps:
   a. Check for app updates.
   b. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.

      If your problem doesn't go away in safe mode, restart your phone and continue to the next section.
4. Reset to factory settings:

   To remove any processes on your phone that may be causing the issue, you can reset your phone to factory settings.

   A factory data reset will remove all data from your phone.
5. If you have a Windows PC, download to your PC and try reinstalling the phone's system software.

Screen is frozen or won't respond

Tip: If your screen goes black when the phone rings so you can't answer the call, clear data for the Phone app.

If your phone freezes, stops responding, or is stuck on a blank or white screen, try the following:

1. Restart your phone. Hold down the Power button for about 30 seconds.
2. If this doesn't work, charge your phone for at least 5 minutes. Then, while connected to the charger, restart again by holding down the Power button for 30 seconds.

If your phone freezes again, check for a larger issue:

1. Restart your phone to unfreeze it.
2. Check if a software update is available for your phone.
3. Check available storage and clear space if needed.

   You may see issues if your phone's internal storage is almost full. To free up space, remove unnecessary files and clear cached data.
4. Check for app updates.

If you can't unfreeze the phone, reset your phone to factory settings, to remove any processes that may be causing the issue.

A factory data reset will remove all data from your phone.

Screen displays wrong colors

Everything is grayscale, black and white

Go to **Settings** > **Digital Wellbeing & parental controls** > **Bedtime mode** > **Off**.

Everything is negative, reversed colors

Go to **Settings** > **Accessibility** > **Color and motion** > **Color inversion** and turn it off .

Tones, hues are different or missing

- If the screen shows warmer tones than usual, check quick settings. If **Night Light** is on, turn it off.
- If certain colors appear diminished or their hues are different, go to **Settings** > **Accessibility** > **Color and motion** > **Color correction** and turn **Use color correction** off.

Background turned dark/light

Go to **Settings** > **Display** and turn **Dark theme** off.

SD card issues

Phone doesn't recognize new SD card

If your phone isn't recognizing a new card that you inserted, try these steps. After each step, check to see if the issue is fixed.

1. Turn your phone off and then on again.
2. Inspect card for damage or alignment issue:
   a. Turn your phone off and remove the card. Inspect for damage. If not damaged, reinsert the card.
   b. Be sure the card sits completely in its slot and that the tray slides easily into the phone.
   c. Turn the phone on.
3. Check that the card is mounted:
   a. Go to **Settings** > **Storage**.
   b. Touch and select your SD card.
   c. Touch > **Mount**.
   d. Turn your phone off and then on again.
4. Check that the card's type and capacity is compatible with your phone. If not, use a different SD card that meets the requirements.
5. Insert a different SD card to confirm that the issue is with the original card and not with your phone.

Phone can't format SD card

Try the following:

- Check that the card's type and capacity is compatible with your phone. If not, use a different SD card that meets the requirements.
- Try formatting the card using an SD card reader and an SD card formatter app on a Windows computer.

Phone stopped reading SD card

After each step, check to see if the issue is fixed:

1. Turn your phone off and then on again.

2. Inspect card for damage or alignment issue:
   a. Turn your phone off and remove the card. Inspect for damage. If not damaged, reinsert the card.
   b. Be sure the card sits completely in its slot and that the tray slides easily into the phone.
   c. Turn the phone on.
3. Check that the card is mounted:
   a. Go to **Settings** > **Storage**.
   b. Touch and select your SD card.
   c. Touch > **Mount**.
   d. Turn your phone off and then on again.
4. Use another device to check if the card is readable:
   a. Insert card into another device.
   b. If that device can read the card and files are present, back up files to your computer.
5. Check for errors with a USB SD card reader connected to a Windows computer:
   a. Insert the card into a USB card reader.
   b. Open My Computer, right-click on the SD card, and select **Properties** > **Service** > **Check disk for errors**. Depending on the size of your card and usage, this process could take up to an hour.
6. Reformat card using an SD card reader and an SD card formatter app on a Windows computer. Formatting the card erases all data on the card. Before you reformat, if you can access your SD card files from your PC, copy them to your computer. Then, use the SD card formatter app to format your card to FAT32.
7. Try a new SD card.

Apps can't view files on SD card

If none of your apps can view files on the card:

1. Install a different file manager app from Play Store. Use that app to check if files are visible on the card.
2. Check if files are visible using a Windows computer:
   a. Turn your phone off and remove the card.
   b. Put the card in the computer’s SD card slot or a connected USB SD card reader.

If a specific app can’t view files the card:

1. Open the app from which files are missing.
2. In the app's settings, set the storage location to be the SD card, not internal or phone memory.

Computer can't view files on SD card

After each troubleshooting step, check to see if your issue is fixed:

1. Use a USB cable that’s capable of data transfer and isn’t for charging only.
2. Be sure you have set the USB connection type to allow file transfer.

Issues making/receiving calls

After each troubleshooting step, check to see if your issue is fixed.

icon is missing

If disappeared from your home screen, you just need to add a shortcut for the Phone app.

SIM card not recognized

If you see or in the status bar or a message that the SIM is not recognized:

1. Turn your phone off and then on again.

   Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**. Then turn it on to establish a new connection with the network.

2. Do one of the following:

   - If your phone allows one SIM card, turn your phone off, then remove and reinsert the SIM.
   - If your phone allows dual SIMs, disable the SIM, then enable it again. Go to **Settings** > **Network & internet** > **SIM cards**. Turn the SIM off . Then turn it on .

3. If your phone has dual SIMs, turn your phone off, then remove the SIM that is not recognized and try it in the other SIM slot.
4. Contact your carrier to make sure your account is set up properly.
5. Ask your carrier to replace the SIM card.
6. Perform an external phone reset.

No signal

1. If you usually have a signal but the status bar shows in your current location, move to another area where you can receive a signal, like outdoors. If you're uncertain whether your carrier provides service in that location, check the coverage map on your carrier's website.
2. If airplane mode is on, turn it off.
3. Turn your phone off and then on again.
4. Check for app updates.
5. Check if a software update is available for your phone.
6. Remove your SIM card and reinsert.
7. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.
8. Reset the phone.

Have signal, but can’t make calls

1. Turn your phone off and then on again.

   Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**. Then turn it on to establish a new connection with the network.

2. Clear the cache for the Phone app.
3. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.
4. Check if a software update is available for your phone.
5. Reset the phone.

Phone doesn’t ring or ring loud enough

1. Check your volume setting.
2. Look for ⛔ in your status bar. If you see it:

   - Open quick settings and touch ⛔ to turn Do Not Disturb off. Your phone will ring for incoming calls.
   - Make sure your phone is set to screen calls at the appropriate times.

3. Check that your ringtone is not set to **None**.
4. Is your phone connected with a Bluetooth device? If so, all audio is routed to the Bluetooth device.
5. If you're using a ringtone that you installed, try using a ringtone that came with the phone.
6. Use safe mode to see if apps you installed are causing the issue and uninstall as needed. Begin with application types like launchers, task killers, or anti-virus apps.

Can't answer ringing phone

1. Clear the data for the Phone app.

   Go to **Settings** > **Apps** > **See all # apps** > **Phone** > **Storage** > **Clear storage**.

Consistent busy signal

Outbound calls

1. If you hear a fast busy signal when you call a number, all cellular circuits may be in use, preventing the call from going through. Try calling again later.
2. If you hear a fast busy signal every time you call the same number, your number may be blocked by an app. Try calling from a different number.

Incoming calls

If you have a signal and can make calls, but callers tell you they consistently get a busy signal when calling you, check that you haven’t blocked their numbers.

Issues during calls

After each troubleshooting step, check to see if your issue is fixed.

Screen goes black

1. If you are using a case, cover or screen protector, remove it and see if it was causing the issue.
2. Check your proximity sensor.

   Dial a call and set the phone on a table (don't use speaker mode), then hold your hand over the proximity sensor to see if you can turn the screen off and on.
3. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.

Calls are dropping

1. Check your signal strength:
   - Weak signal from your cellular provider is a common cause of dropped calls. In the status bar, see how many bars your network connection has. If you see only one or two bars, change locations to improve your signal strength, particularly if you are indoors.
2. Turn your phone off and then on again.

   Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**. Then turn it on to establish a new connection with the network.
3. During a call, check that the proximity sensor works by covering it to confirm that it turns off your screen, preventing accidental touches during calls. You can also download an app to automatically lock your screen during calls; search for “call screen lock” on Play Store.
4. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.
5. Check if a software update is available for your phone.
6. Reset the phone.

People can’t hear me on calls

1. Check that nothing is covering the microphone:
   - If you are using a case, cover or screen protector, remove it and see if it was causing the issue.
   - Check that the protective film that ships with the phone has been removed.
2. Check to see if your phone is using Voice privacy. (This feature is not available on all models.) Turn it off to see if sound quality improves:

   a. Touch .

   b. Touch > **Settings** > **Calls**.
3. If the issue occurs while using the speakerphone or a Bluetooth headset, check your signal strength.

   In the status bar, see how many bars your network connection has. If you see only one or two bars, change locations to improve your signal strength, particularly if you are indoors.
4. Turn your phone off and then on again.

   Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**. Then turn it on to establish a new connection with the network.
5. Check if a software update is available for your phone.
6. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.

7. Reset the phone.

Poor sound quality on calls

Start by checking your volume setting. You can only adjust the call volume with the Volume buttons while you're on a call.

Wired headset

1. Make sure the headset is inserted completely into the headset jack.
2. If you are using a case or cover, remove it and re-insert the headset to see if it was interfering.
3. Try a different headset to determine if the issue is with the original headset.

Earpiece

1. Check that nothing is covering the microphone:
   - If you are using a case, cover or screen protector, remove it and see if it was causing the issue.
   - If the phone was shipped with a protective plastic film, remove the film.
2. While in a call, try using the speakerphone or a wired headset to see if the sound quality improves. If it doesn't, the issue is probably network signal strength instead of hardware.
3. Turn your phone off and then on again.

   Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**. Then turn it on to establish a new connection with the network.
4. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.
5. Check if a software update is available for your phone.
6. Reset the phone.

Bluetooth device

Check battery level of Bluetooth device and phone, and charge if necessary. Bluetooth devices may disconnect or create noise when the phone or Bluetooth battery are low.

Can't make/receive calls

Try these troubleshooting steps.

Charging issues

Try these troubleshooting steps. After each step, check to see if your issue is fixed.

1. Make sure the USB plug fits securely into the phone.
2. If the battery is completely depleted, connect the charger and wait about 10 minutes until it has enough voltage to charge, then press the Power button.
3. If you're charging by connecting to a wall outlet:
   - If the outlet is controlled with a switch, check that it is turned on.
   - Use the charger that came with the phone.
   - Remove any case, to see if it's impeding the charger/port connection.
   - Inspect the charger for damage to the wire or plug. If you see damage, try charging by connecting to your computer with a USB cable.
   - Check the outlet for damage or loose parts. If you see damage, try another outlet.
4. If you're charging by connecting to your computer, check the USB connection:
   a. Swipe the status bar down.
   b. On the USB notification, touch , then touch the notification.
   c. Touch **No data transfer**.
5. Reboot the phone by holding the Power button for 7-10 seconds.
6. Reset the phone.

Phone gets hot while charging

The TurboPower charger, which provides efficient, rapid charging can cause the battery to heat up, which is normal. If the battery reaches 111 degrees (F), the charging rate slows down. Once the battery cools down, the charger begins rapid charging again.

TurboPower charging not working

When the battery is below 78%, the TurboPower charger charges rapidly. When the battery is at 78% or higher, it charges at regular speed.

If your battery is below 78% and isn’t charging rapidly, disconnect your phone from the charger and plug it back in again.

Battery drains too fast

Battery life varies

The way you use your phone can really affect how long you can go before recharging your battery. Navigating, playing games, browsing the web, making calls and texting all require energy. So, your battery life may vary day to day, depending on what you're doing.

If your battery is draining faster than expected

If your battery life seems shorter than usual, a quick and easy step is to reboot your phone, especially if you haven't turned it off in longer than a week.

1. Press & hold the **Power** + **Volume up** buttons simultaneously.
2. Touch **Restart**.
3. Plug your phone in and charge it normally.

Tip: You can adjust settings to extend your battery life.

Bluetooth issues

Bluetooth turning on automatically

After each step, check to see if your issue is fixed:

1. When Bluetooth is off, your phone can still scan and automatically connect to a previously paired device. To prevent this, turn off Bluetooth scanning.
2. Some third-party apps that control Bluetooth devices (smart watches, fitness and vehicle monitors, etc.) automatically turn Bluetooth on. If they do, this can prevent you from turning Bluetooth off.

   To check if a third-party app you installed is automatically turning Bluetooth on, use safe mode to identify the problematic app, then uninstall it.

Can't pair

After each step, check to see if your issue is fixed:

1. First, check the basics.
2. Make sure the phone and Bluetooth device are in discovery mode.
3. Refresh the available devices list:
   a. Go to **Settings** > **Connected devices**.
   b. Touch **Pair new device**.
4. Check if a software update is available for your phone.
5. If you're having trouble pairing with your car, see the car manufacturer's instructions for your model.
6. Reset the phone's connections, then power cycle the phone.

Can't reconnect previously paired device

Unpair the Bluetooth device, then pair it again:

1. Go to **Settings** > **Connected devices**.
2. Next to the paired device, touch > **FORGET**.
3. Pair the device again.

Can't hear music

After each step, check to see if your issue is fixed:

1. First, check the basics.
2. Check that the volume is up on your phone and car or Bluetooth device.
3. Check that other devices paired with your phone aren't playing the music.

4. Check that **Media audio** is on:
   a. Go to **Settings** > **Connected devices**.
   b. Next to the paired device, touch .
   c. Make sure **Media audio** is checked.
5. If the problem is with a car, check the car's instructions.

Can't make or hear on calls

After each step, check to see if your issue is fixed:

1. Check that other devices paired with your phone aren't getting your calls.
2. Check that **Phone audio** is on:
   a. Go to **Settings** > **Connected devices**.
   b. Next to the paired device, touch .
   c. Make sure **Phone audio** is checked.
3. If the problem is with a car, check the car's instructions.

Connection drops

After each step, check to see if your issue is fixed:

1. Check battery level on your phone and on the Bluetooth device and charge if needed. Bluetooth devices may disconnect or create noise when the phone or Bluetooth battery is low.
2. Adjust positioning:
   - Make sure you are wearing or positioning the device appropriately.
   - Keep metal objects, such as keys or coins, away from the phone and device to avoid interference.
3. Clear data for this system app:
   a. Go to **Settings** > **Apps**, then touch **See all # apps**.
   b. Touch > **Show system apps**.
   c. Touch **Bluetooth** > **Storage & cache** > **Clear storage**.

Paired device can't see contacts

Check that contact sharing is on:

1. Go to **Settings** > **Connected devices**.
2. Next to the paired device, touch .
3. Make sure **Contact sharing** is on.
4. Check and adjust sharing settings on the paired device or in the device’s app.

Fix it: Check the basics

After each step, see if your issue is fixed:

1. Check battery level on your phone and Bluetooth device, and charge if either is low.
2. Keep the phone and Bluetooth device within 30 feet of each other, closer for better performance.
3. On your phone, turn Bluetooth off and then on again.
4. Turn off the Bluetooth device to disconnect it. Then turn it back on to automatically reconnect with the phone.
5. Power cycle both your phone and the Bluetooth device.

If that doesn't fix it, follow the steps for specific problems in the sections above.

Wi-Fi issues

After each troubleshooting step, check to see if the issue is fixed.

Can't connect to a network

1. When you enter the password to connect:
   - Get the password from the Wi-Fi router and make sure you enter it correctly on your phone.
   - If the **Connect** button is greyed out, the password you entered isn’t long enough. Confirm the router’s password and re-enter it on your phone.
2. Check if a software update is available for your phone.
3. Check that the Wi-Fi router firmware is up to date.
4. Reset the phone’s network connections.
5. Reset the phone.

Connection drops

After each troubleshooting step, check to see if the issue is fixed.

1. Turn off Wi-Fi scanning.
2. Remove the network connection. Then set up the Wi-Fi connection again.
3. Check if a software update is available for your phone.
4. Restart your wireless router by unplugging it from the power outlet for about 30 seconds and then plugging it back in. Once the wireless router is running again, try to reconnect.
5. On a computer, log into your router and try adjusting one or more of these router settings:
   - If the router has multiple bands, disable the lower band.
   - Change the encryption/security setting of the SSID from WPA-password to WPA-PSK.
   - Don't use automatic channel selection. Instead, assign a fixed channel, such as Channel 6.
6. Reset the phone’s connections.

Hotspot problems

If you can't turn your hotspot on, check that:

- Cellular data is on.
- Data Saver is turned off.

If you can't connect a computer or tablet to your phone's Wi-Fi hotspot:

1. The cellular network for your phone may not be in range. Check the signal icon in your status bar to ensure you have strong connection. If not, try these troubleshooting steps.
2. Re-enter the password on the device to match the hotspot password set up on your phone. Make sure that the encryption type and security settings match on the device and your phone.
3. Disconnect and then reconnect:
    a. Turn off the connection from your device.
    b. Turn off the phone's hotspot.
    c. Restart your device.
    d. Wait for 1 minute, then turn on and enable the hotspot on your phone.
    e. Reconnect the device.

If you've connected a computer or tablet but can't access certain web sites:

1. Power cycle your computer or tablet.
2. Make sure the browser version is up to date.

Can't transfer files or connect to computer

If you're having problems using a USB connection to connect your phone to your computer, try these troubleshooting steps.

Check your computer

Windows computer

1. Check your computer’s settings to make sure that Windows automatically detects new hardware.
2. Restart your computer.

Mac computer

- Check that your computer is running Mac OS X 10.5 and up.
- Check that your computer has Android File Transfer installed and open.
- Restart your computer.

Check your phone

1. Check if a software update is available for your phone.
2. Hold down your phone's Power button for 5-7 seconds, or up to 30 seconds.

Check your USB connection

1. Try a different USB cable. Not all USB cables can transfer files.

2. To test the USB port on your phone, connect your phone to a different computer.
3. To test the USB port on your computer, connect a different device to your computer.

Forgot unlock code

If you forgot your PIN, pattern, or password for unlocking your screen, you need to erase your phone, set it up again, and set a new screen lock.

1. Make sure you know your Gmail address and password, which you'll need when setting up the phone. If you've forgotten them, use Google's website to retrieve them.
2. Perform an external reset of your phone.

Can't sign in to Google

If you've forgotten the Gmail address and password for your Google account:

1. Visit Google's website to reset the password.
2. On a computer, log in to Gmail and confirm that the new password works.
3. Wait 24 hours after changing your password before resetting your device. For security, you can't use an account to set up a phone after reset if that password changed within 24 hours.

Account sync issues

If your account is having problems syncing, you may see a message or an icon.

In most cases, these issues are temporary and your account will sync again after a few minutes. If you keep having sync issues, try the solutions below.

Sync account manually

1. Go to **Settings** > **Passwords & accounts**.
2. Touch the account to sync.
3. Touch **Account sync**.

If your phone syncs, your issue is fixed. If not, try the troubleshooting solutions below.

Basic troubleshooting

After each troubleshooting step, try manually syncing to test if sync works.

1. Check that auto-sync is on.
   a. Go to **Settings** > **Passwords & accounts**.
   b. Touch the account.

      by the account name means that some or all of the account's information is configured to auto-sync.

      by the account name means that the account will not auto-sync.

2. Make sure your Internet connection works.

   For sync to work, you need an Internet connection. To test if your connection is working, open a browser and load a website. If the website doesn't load, get help connecting to Wi-Fi or to cellular data.

3. Check if you have account issues.

   For sync to work, you need to be able to sign in to your Google account. Make sure that you can sign in to your account in other ways and on another device. For example, try checking your Gmail with your computer's browser.

   - If you can sign in, the issue is with your phone. You can move on to the next solution.
   - If you can't sign in, your account may have an issue.

4. Check if a software update is available for your phone.

Advanced troubleshooting

After each troubleshooting step, try manually syncing to test if sync works.

1. Remove and re-add your account.
2. Clear cache and data for the Contacts app.
   a. If you've saved any contacts since you last synced, back them up. Open the **Contacts** app, then touch > . Then export to a VCF file and email the file to yourself.
   b. Clear the cache and data for the Contacts app.
   c. Download the VCF file that you emailed to yourself, then import those contacts (**Contacts** app > >).

App issues

App missing from home screen

If an app disappeared from your home screen, the shortcut for opening the app was removed and you just need to add a shortcut.

If an app disappeared from your list of all apps, you need to reinstall it.

App crashes, won't open, or isn't working

After each step, check to see if the issue is fixed:

1. Turn your phone off and then on again.

   Press & hold the **Power** + **Volume up** buttons simultaneously, then touch **Power off**.

2. Check that you have not disabled permissions for the app. If any permissions are turned off, turn them on and try using the app again.
3. Update the app.
4. Force stop the app. This completely shuts down the app, including any background services that may be causing your issue.
5. Clear the app's cache. This frees up space by removing temporary files.
6. Clear the app's data. This erases all data saved in this app.
7. Contact the app's developer.
   a. Open the Play Store app.
   b. Touch your profile icon > **My apps & games**.
   c. Touch the app and swipe down to see contact information.
8. If all else fails, delete the app.

Tip: To figure out which third-party app is causing performance problems, use safe mode.

App disabled in safe mode

If apps are disabled because you're in safe mode, you can't use them until you exit safe mode.

To exit safe mode, turn your phone off and then on again.

Problems with app you installed

After each step, check to see if the issue is fixed:

1. Check for updates to the app.
2. If you can open the app, touch or > **Help** and look for troubleshooting information.
3. Clear the app's cache.

4. Go to the developer's website for support.
   a. Open the Play Store app.
   b. Touch your profile icon > **My apps & games**.
   c. Touch the app and swipe down to see a link to the website.

Camera issues

Photo looks blurry

Wipe the lens clean with a soft, dry cloth and retake the photo.

If new photos still look blurry:

- Increase resolution (photo size) in the Camera app. A smaller photo size results in lower image quality.
- Avoid zooming when taking a photo. Pixelation always occurs when you zoom a digital photo. If you use zoom during the shot itself, pixelation will be more evident.
- If you're indoors and taking a panoramic photo, switch to regular mode. Panorama works best for outdoor shots; the algorithm that stitches the images together isn't optimized for indoor, up-close shots.

Accidentally deleted photos

You can try to recover recently deleted photos.

If recovered, be sure to back up your photos to the cloud.

Can't delete photo

If a photo or video you deleted comes back, check if it's on your SD card. To delete it, use the Files app. (If you don't have this app, download a file manager app and use it to delete the photo from your card.)

Or, remove your card from the phone and use a computer to delete photos from the card.

WhatsApp camera issues

If you installed WhatsApp and have problems taking photos or videos with it:

1. Check for updates to the app.
2. Clear the app's cache.
3. If the problem continues, open WhatsApp, touch > **Settings** > **Help**, and search for information about your issue.

Error: Please restart camera

After each troubleshooting step, check to see if the issue is fixed:

1. Turn your phone off and then on again.
2. Clear the cache for the Camera app.
3. Check for updates to your Camera app.

4. Use safe mode to see if apps you installed are causing the issue and uninstall as needed.

   If the camera works correctly in safe mode, a third-party app is probably causing the issue.

5. If you're storing photos/videos on your SD card, remove the card and see if you can take photos without getting the error. If so, replace the SD card with a new card. Make sure the new card is certified A1 and has a fast write speed.

Error: Camera busy

This error can occur if you use the camera in one app and then switch to another app that requires permission to access the camera.

After each troubleshooting step, check to see if the issue is fixed:

1. Turn your phone off and then on again.
2. Check which apps have permission to access the camera.

   Settings > **Apps** > **Camera**

   Review the list of the apps on your phone that request camera access and remove access for apps that look suspicious or that you don't use.

3. Clear the cache and data for the Camera app.

Error: Trash is full

If you're getting messages about the trash being full:

1. Open the **Gallery** app.
2. Touch **Folders** > **Trash** > **Empty trash**.
3. Touch **Empty** to confirm the deletion.

Messaging issues

If you're having issues sending or receiving messages, try the following:

1. Check for updates to your messaging app.
2. Check if a software update is available for your phone.
3. Turn your phone off and then on again.
4. If the issue persists, follow the steps below for specific issues. After each troubleshooting step, check to see if your issue is fixed.

Red ! on text message

If you see , your text message was not sent.

1. Check your signal strength.

   Weak signal from your cellular provider is a common cause of unsent messages. In the status bar, see how many bars your network connection has. If you see only one or two bars, change locations to improve your signal strength, particularly if you are indoors.

2. Open the conversation and resend the message.

Can't hear notifications

1. Check that message notifications are turned on.
2. Look for ⊖ in your status bar. If you see it:
   - Open quick settings and touch ⊖ to turn Do Not Disturb off.
   - Make sure your phone is set to screen calls at the appropriate times.

Can't send or receive messages

1. Change your preferred network to **Global**. (Not all carriers support this feature.)
2. If you recently switched from iPhone and are having trouble sending messages to or receiving them from an iPhone, your phone number may still be associated with iMessage. You need to deregister your account.
3. Contact your carrier.

Can't send or receive pictures or videos

Check that:

- Cellular data is turned on.
- Your data plan supports MMS (multimedia messages).

Messages app stopped

1. Check that you have not disabled permissions for the Messages app. If any permissions are turned off, turn them on and try using the app again.
2. Force stop the app. This completely shuts down the app, including any background services that may be causing your issue.
3. Uninstall any recent app updates.

   Go to **Settings** > **Apps** > **See all # apps** > **Messages** > ⋮ > **Uninstall updates**.
4. Clear the app's cache. This frees up space by removing temporary files.
5. Reset the phone.

Keyboard not working

If your keyboard has problems, like a missing spacebar:

1. Check for updates to your keyboard app.
2. Turn your phone off and then on again.
3. Clear the cache for the keyboard app.

Problems with Facebook, WhatsApp, other apps

If you're having problems with messaging apps that you installed:

1. Check for updates to the app.

2. If you can open the app, touch ☰ or ⋮ > **Help** and look for troubleshooting information.
3. Turn your phone off and then on again.
4. Clear the app's cache.

Gmail issues

For help with Gmail, read Google's troubleshooting information.

Play Store issues

For help with Play Store, read Google's troubleshooting information.

Update Android software

For best performance, keep your phone updated with the latest available Android software.

Check Android version number

To check what version of Android your phone is running:

1. Go to **Settings** > **About phone** > **Android version**.
2. The number displayed is your phone's Android version.

Install Android software updates

Your phone notifies you if an Android software update is available.

To manually check for updates, go to **Settings** > **System updates** > **Check for system update**.

If an upgrade is available, follow the onscreen instructions to install it.

Tips:

- To save data charges, use a Wi-Fi connection to download software updates.
- For safety reasons, your phone may download security updates (not OS upgrades) automatically over your mobile network if Wi-Fi is not available within a few days after you receive a notification that a security update is available. In this case, data charges may apply depending on the carrier.

You can't downgrade to a previous software version after installing an update.

Check if and when updates are available

Types of updates:

- **Security updates** contain fixes and improvements from Google for your current version of the Android operating system. Motorola provides these updates to most phones on a regular basis.
- **Android OS updates** are new versions of the Android operating system. Motorola provides OS updates from Google to eligible phones as soon as possible.

To see if an OS update will be available for your phone, or if your phone is still eligible for security updates, see the software update website for your country. Our support agents get their Android update information from here too. If the website doesn't have a update release date for your phone, then we don’t know the release date yet.

For Android OS updates, with several phone models, regions, and distribution channels we may have hundreds of software versions to test before releasing an update to your phone. Because dependencies on carriers and other key partners for certifications, independent testing, and requests for changes take more time, all phone owners don't receive updates at the same time, even in the same region.

Reset Wi-Fi, cellular data, and Bluetooth

If you're having problems with connections, review this information first:

- Wi-Fi

- Bluetooth
- Cellular data
- Hotspot (internet sharing)

Then, if you're still experiencing problems, try resetting all network settings:

1. Go to **Settings** > **System** > **Reset options**.
2. Touch **Reset Wi-Fi, mobile & Bluetooth** > **Reset settings**.
3. If you're using dual SIMs, select the SIM to reset for mobile data settings.
4. Touch **Reset settings**.
5. Try to reconnect to Wi-Fi, cellular data, and Bluetooth, or try to share your internet connection again.

Reset phone

What a reset does

Resetting your phone erases all data and brings it back to out-of-the-box condition. This data will be erased from the phone:

- Google account
- Media (music, photos, videos)
- System settings and data
- App settings and data (including text messages)
- Downloaded apps

Before you reset

1. Back up your data.

   If your phone works and you can unlock it:

   - If you aren't automatically saving your photos and videos to your Google Gallery library, back them up now or copy them to a computer.
   - Back up files and folders to Drive.
   - Make sure that any changes you made to contacts or calendar are synced to an account.

2. Make sure you have your security information:

   - The username for a Google account on your phone. (**Settings** > **Passwords & accounts**)
   - The password for that Google account. If you've forgotten the password, you can reset it. Wait 24 hours before resetting the phone if you reset your password.
   - If you set a screen lock, make sure you know the PIN, pattern, or password.

   To restore your data after resetting, you'll need to enter security information. This shows that you or someone you trust did the reset and helps prevent others from using your phone without permission.

3. If you’re going to give your phone to someone else, disable Factory Reset Protection (FRP):
   a. Remove the screen lock.
   b. Remove your Google accounts from the phone.

   FRP is security measure that keeps your data safe if your phone is lost or stolen, and that requires logging into the phone with the owner's account to reset the phone. Removing your account and screen lock before the reset lets the person you're giving it to set it up with their own information.

Reset phone from Settings

To erase all data and reset your phone:

1. Go to **Settings** > **System**.
2. Touch **Reset options** > **Erase all data (factory reset)**.

Reset phone if you can't open Settings

If you can’t open Settings , do an external reset.

1. Charge your battery 30% or more.
2. Turn off the phone and disconnect it from the charger.
3. Press and hold the Volume Down button and the Power button at the same time until the phone turns on.
4. If you see an Android robot with an exclamation mark, press & hold the Power button and, while holding it down, press & release the Volume up button.
5. Use the Volume buttons to scroll to **Wipe data/factory reset**, then press the Power button to select it.
6. Use Volume buttons to scroll to **Factory data reset**, then press the Power button to select it.

   Allow several seconds for the reset to complete.
7. Use Volume buttons to scroll to **Reboot system now**, then press the Power button to select it.

   Allow several minutes for the reboot to complete. If the phone doesn't finish rebooting, press & hold the Power button until the screen turns dark, then release it to power up normally.
8. If you reset your phone because you suspect a third-party app is causing problems, when you set up the phone again, be sure you don't copy all apps. Restore one app at a time and use the phone for a while. If the phone has no issues, install the next app and retest.

Get more help

Issue	Where to get help
Billing or cellular network issues	Contact your carrier.
Learn to use an app	Open the app and touch ⋮ or ☰ > **Help**.

Phone issue	Visit mobilesupport.lenovo.com for solutions, user forums, live contact options.